



DEPARTAMENTO  
DE EVALUACION  
SENSORIAL  
DE ALIMENTOS

# **Soldesa: User's guide**

**(Free Software from the “Departamento de Evaluación Sensorial de Alimentos”)**



**Authors:**

**Graciela Rodríguez**

**Guillermo Hough**



**Instituto Superior Experimental de Tecnología Alimentaria**  
**Hipólito Irigoyen 931. 9 de Julio. Provincia de Buenos Aires. Argentina**



**Departamento de Evaluación Sensorial de Alimentos**  
**Hipólito Irigoyen 931. 9 de Julio. Provincia de Buenos Aires. Argentina**



**Comisión de Investigaciones Científicas de la Provincia de Buenos Aires**  
**Calle 526 entre 10 y 11. La Plata. Provincia de Buenos Aires. Argentina**

**Copyright (c) 2013 DESA/ISETA.**

Permission is granted to copy, distribute and/or modify this document under the free GNU Documentation License, Version 1.3 or any later version published by the Free Software Foundation, with no Invariant Sections, with no Cover or Backpage texts. A copy of the License is attached under the title "Licencia Documento GNU.txt"

## INDICE

1. Introduction.....	4
2. Starting the session.....	5
3. admin's functions.....	5
3.1 Generation of panel Leaders and Assessors.....	6
4. Panel leader's functions.....	9
4.1 Creating a panel.....	9
4.1.1 Test design.....	10
4.1.2 Naming assessors and defining measuring anchors.	15
4.1.3 Attributes and descriptors.....	17
4.1.4 Panel administration.....	23
5. Assessor's functions.....	26
6. Final data file.....	31
7. 'admin': further actions. ....	34
7.1 Saved panels.....	34
7.2 Delete panels.....	35
7.3 Edit visibility.....	36

# 1. INTRODUCTION

**Soldesa** was developed by the “Departamento de Evaluación Sensorial de Alimentos” of the “Instituto Superior Experimental de Tecnología Alimentaria (DESA-ISETA)” and of the “Comisión de Investigaciones Científicas de la provincia de Buenos Aires (CIC)”, with collaboration from the “Cooperativa de Software Libre ELVEX”

Email: [graciela@desa.edu.ar](mailto:graciela@desa.edu.ar)

Web: [www.desa.edu.ar](http://www.desa.edu.ar)

Descriptive sensory analysis implies collecting a large volume of data. Till approximately 1970, the marks made by assessors on scales were measured wearily with a ruler. Since then, specific software has been developed for assessors to mark the scales on a computer screen using a mouse; thus eliminating time-consuming and error-prone sheets of pencil-marked paper. There are many companies and institutions that do not have the resources to buy those software packages, limiting their analysis capabilities or forcing them to lengthy data input.

The program you have downloaded is a data-acquisition system. Python is the open source programming language. The program has to be installed in a server operating under GNU/Linux. The computers installed in the individual sensory booths don't necessarily have to run under Linux, but they do require an Internet navigator.

Using Soldesa, the panel leader uploads an Excel® file with the design to be used, chooses the assessors, the type of scale and anchors, introduces (or chooses from a file) attributes and descriptors and, finally, activates the panel to be measured. Assessors can sit at any booth and initialize a Soldesa measuring session using their passwords. Once the measurements have finished, data can be exported to an Excel® file which is generated in the format used by most statistical packages.

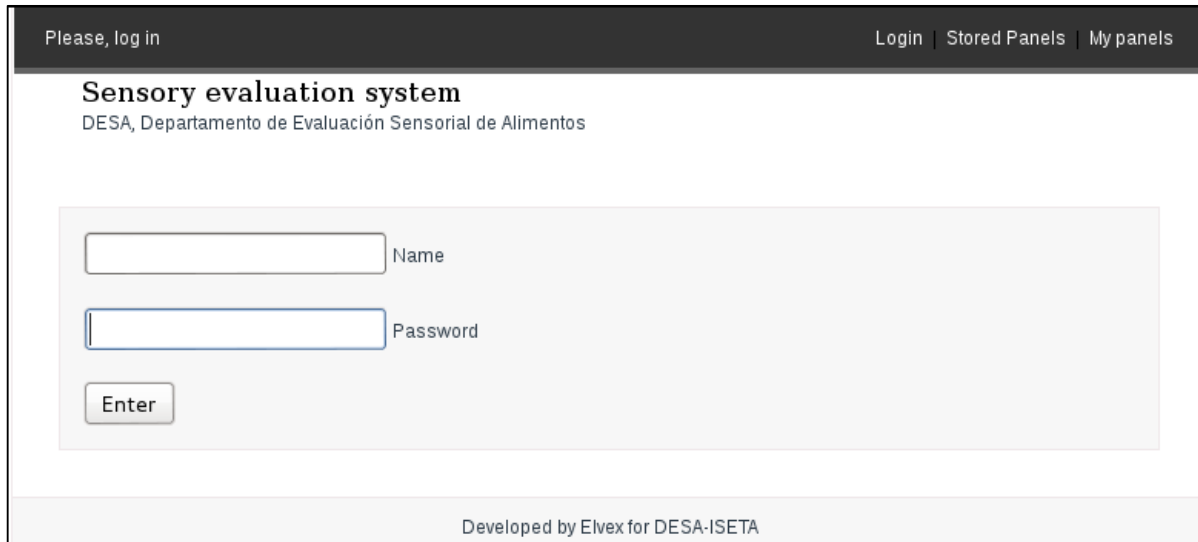
In its present version 1, Soldesa only covers descriptive analysis. Hopefully users will expand the program by adding modules that cover experimental

design, consumer questionnaires and other sensory tests such as ranking, triangle test and others.

## 2. Starting the session

When Soldesa starts the initial screen is shown (Figure 2.1)

**Figure 2.1**



The screenshot shows the login interface for the 'Sensory evaluation system'. At the top, a dark header bar contains the text 'Please, log in' on the left and 'Login | Stored Panels | My panels' on the right. Below the header, the title 'Sensory evaluation system' is displayed in bold, followed by the subtitle 'DESA, Departamento de Evaluación Sensorial de Alimentos'. The main content area is a light gray box containing a login form with two input fields: 'Name' and 'Password'. Below these fields is an 'Enter' button. At the bottom of the page, a footer bar states 'Developed by Elvex for DESA-ISETA'.

The first time you start the program, you can only do so as **admin** (case sensitive). 'admin' is the local program administrator. Its password is '123456'.

His functions are:

- 2.1 Generate the panel leaders and assessors, giving each of them passwords
- 2.2 Have access to all the panels generated by the different panel leaders. This gives her the possibility of passing a panel generated by one leader to another, and also to delete panels.

## 3. admin's functions

As stated above, to access the system you should write 'admin' as User and '123456' as password. (Figure 3.1).

**Figure 3.1**

The screenshot shows the login interface of the 'Sensory evaluation system'. At the top, a dark header bar contains the text 'Please, log in' on the left and 'Login' on the right. Below the header, the system title 'Sensory evaluation system' is displayed, followed by the subtitle 'DESA, Departamento de Evaluación Sensorial de Alimentos'. The main content area features a light gray box with a login form. This form includes a text input field with 'admin' entered, labeled 'Name', and a password input field with masked characters, labeled 'Password'. Below these fields is an 'Enter' button. At the bottom of the page, a footer bar states 'Developed by Elvex for DESA-ISETA'.

### ***3.1.1 Generation of panel Leaders and Assessors***

First you should click on “User”. This allows you to generate the panel leaders and assessors, giving each of them a password (Figure 3.2).

**Figure 3.2**

The screenshot displays the 'Create User' page within the 'Sensory evaluation system'. The top header bar shows 'Welcome admin' on the left and navigation links 'Panels | Users | Stored Panels | Logout' on the right. The page title 'Sensory evaluation system' and subtitle 'DESA, Departamento de Evaluación Sensorial de Alimentos' are present. The main content area is a light gray box titled 'Create User'. It contains a form with a 'Name' input field, a 'Password' input field, a 'Role' dropdown menu currently set to 'assessor', and a 'Group' dropdown menu currently set to 'general assessors'. A 'Create' button is located at the bottom of the form. The footer bar at the bottom of the page reads 'Developed by Elvex for DESA-ISETA'.

The data required for this module are: user name, password, role within the system and group to which they belong; this last is the case of assessors grouped for some special reason, for example, a group that only measures yogurt.

Should you want to create a new group you should select the “create new” option from the groups menu and introduce the desired name (Figure 3.3).

**Figure 3.3**

The screenshot shows the 'Create User' form within the 'Sensory evaluation system' interface. The header includes 'Welcome admin' and navigation links for 'Panels', 'Users', 'Stored Panels', and 'Logout'. The main title is 'Sensory evaluation system' with the subtitle 'DESA, Departamento de Evaluación Sensorial de Alimentos'. The form itself is titled 'Create User' and contains the following fields: a text input for 'Name', a text input for 'Password', a dropdown menu for 'Role' currently set to 'assessor', a dropdown menu for 'Group' with the option '-- create new --', and a text input for 'Create Group' containing the text 'YOGURT'. A 'Create' button is located at the bottom of the form. The footer of the page states 'Developed by Elvex for DESA-ISETA'.

Once this step has been completed, ‘admin’ can visualize the complete list of registered users grouped according to the different roles within the system: Administrators (admin), Leaders and Assessors (Figure 3.4). In the case of Leaders and Assessors, ‘admin’ can edit existing data, create new users or eliminate existing ones (Figure 3.4).



Figure 3.4

Welcome admin

Panels | Users | Stored Panels | Logout

Create a user

## Sensory evaluation system

DESA, Departamento de Evaluación Sensorial de Alimentos

### Administrators

admin

admin

admin

admin

admin

admin

admin

### Leaders

Guillermo | [edit](#) · [delete](#)

graciela | [edit](#) · [delete](#)

### Assessors

Paula | [edit](#) · [delete](#)

Lorena | [edit](#) · [delete](#)

MiriamS | [edit](#) · [delete](#)

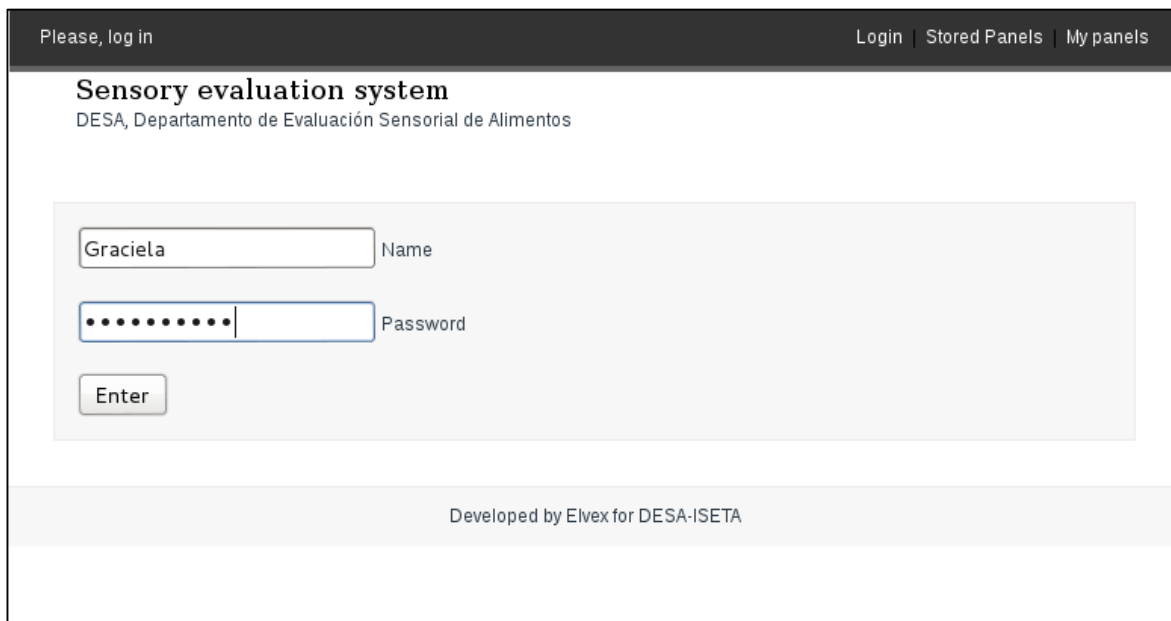
AlejandraF | [edit](#) · [delete](#)

Luciano | [edit](#) · [delete](#)

## 4. Panel leader's functions

Once 'admin' has introduced you as Panel Leader ('admin' can also perform Panel Leader's functions), you can create and manage your panels. You'll enter the program with your user's name and password that 'admin' has given you (Figure 4.1).

**Figure 4.1**



The screenshot shows a web interface for a 'Sensory evaluation system'. At the top, a dark header bar contains the text 'Please, log in' on the left and 'Login | Stored Panels | My panels' on the right. Below the header, the main content area has the title 'Sensory evaluation system' and the subtitle 'DESA, Departamento de Evaluación Sensorial de Alimentos'. The login form consists of two input fields: 'Name' with the text 'Graciela' and 'Password' with masked characters. Below these fields is an 'Enter' button. At the bottom of the page, a light gray footer bar contains the text 'Developed by Elvex for DESA-ISETA'.

### 4.1 Creating a panel

To create a new panel we have to go to the corresponding module by clicking on "Create Panel" on the upper right of the screen (Figure 4.2). First we introduce the panel's basic data: Name of the panel, Leader and finally we select the file with the design of our test that has to be loaded from our computer or a local network.

Welcome Graciela

Panels | Stored Panels | My panels | Logout

## Sensory evaluation system

DESA, Departamento de Evaluación Sensorial de Alimentos

### Create Panel

Name

Leader

Order

Developed by Elvex for DESA-SETA

Note: if your computer is using English language as default, you should read 'Browse' instead of 'Examinar'

#### 4.1.1 Test design

The Leader must generate an Excel file with the test design. This design is based on the following data:

- Number of samples
- Sample labels (brand, treatment or whatever)
- Number of assessors.
- Number of repeat measurements of each sample
- Maximum number of samples to be evaluated in a session

With this information two random sequences are performed. One corresponds to samples and repetitions to be presented in each session, and then another corresponding to sample presentation order for each sample and each assessor. It should be noted that a balanced order of presentation can be used instead of a randomized order.

Following are two examples.

Example 1: bread in loafs

- Number of samples: 5
- Labels for each one of the samples: Aro, Bio, Cel, Dar, Ele

- Number of assessors: 4
- Number of repetitions: 3
- Maximum number of samples to be evaluated in a session: 4

With this information, a total of 4 sessions are required. Figure 4.3 shows the first sheet of the resulting Excel file with the randomization that has to be uploaded to Soldesa. At this time the format accepted by Soldesa corresponds to Excel-2003 or previous.

**Figure 4.3**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	SES1	REP1	EVA1	MUE1	ROT1	VAS1	ORD1											
2	1	1	1	3	Cel	844	1											
3	1	2	1	2	Bio	853	2											
4	1	1	1	4	Ele	548	3											
5	1	1	1	1	Bio	928	4											
6	1	1	2	4	Ele	548	1											
7	1	1	2	3	Cel	844	2											
8	1	2	2	2	Bio	853	3											
9	1	1	2	1	Bio	928	4											
10	1	1	3	4	Ele	548	1											
11	1	1	3	1	Bio	928	2											
12	1	2	3	2	Bio	853	3											
13	1	1	3	3	Cel	844	4											
14	1	1	4	1	Bio	928	1											
15	1	2	4	2	Bio	853	2											
16	1	1	4	3	Cel	844	3											
17	1	1	4	4	Ele	548	4											
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		

In the lower left it can be seen that each sheet is named SES1, SES2, SES3 and SES4. Each sheet has 7 columns:

- SES1: sesión number
- REP1: repetition corresponding to each sample. Can be useful in cases where each repetition corresponds, for example, to a different batch.
- EVA1: assessor number, the assessor's name will be given within Soldesa.
- MUE1: sample number within each session.

- Figure 4.4 shows the sheet corresponding to SES4. You can see that the column labels end with the session number; for example, for SES4 we have SES4, REP4, EVA4, etc.

pan de molde - Microsoft Excel

Archivo Inicio Insertar Diseño de página Fórmulas Datos Revisar Vista

Portape... Fuente Alineación Número Estilos Celdas

Formato condicional Dar formato como tabla Estilos de celda Insertar Eliminar Formato Ordenar y filtrar Buscar y seleccionar Modificar

G1 ORD4

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	SES4	REP4	EV4	MUE4	ROT4	VAS4	ORD4											
2		4	3	1	3 Ele	169	1											
3		4	3	1	1 Cel	371	2											
4		4	3	1	2 Dar	627	3											
5		4	3	2	2 Dar	627	1											
6		4	3	2	3 Ele	169	2											
7		4	3	2	1 Cel	371	3											
8		4	3	3	3 Ele	169	1											
9		4	3	3	2 Dar	627	2											
10		4	3	3	1 Cel	371	3											
11		4	3	4	1 Cel	371	1											
12		4	3	4	3 Ele	169	2											
13		4	3	4	2 Dar	627	3											
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		

Listo SES1 SES2 SES3 SES4

100%

Once the file is uploaded to Soldesa (Figure 4.5), a design summary appears as shown in Figure 4.6. In Figure 4.6 you can see an option that says “Type” with the default ‘sample’. There are two ways to generate a panel:

- 13

Once the first sample has been measured, the following one is presented.

- By attribute: the assessor will evaluate the samples per attribute. For example, she'll evaluate all the aroma descriptors for all samples, then all the appearance descriptors for all samples, etc.

**Figure 4.5**

The screenshot displays a web application interface for a sensory evaluation system. At the top, a dark header bar contains the text 'Welcome Graciela' on the left and navigation links 'Panels', 'Stored Panels', 'My panels', and 'Logout' on the right. Below the header, the main content area has a title 'Sensory evaluation system' and a subtitle 'DESA, Departamento de Evaluación Sensorial de Alimentos'. The central part of the interface is a light gray box titled 'Create Panel'. Inside this box, there is a form with several fields: a text input field containing 'Bread' with a label 'Name' to its right; a dropdown menu showing 'Graciela' with a double arrow icon and a label 'Leader' to its right; a text input field containing '/media/GRACE/orden.xls' with a label 'Order' to its right; and a blue button labeled 'Examinar...' next to the file path field. Below these fields is an 'Upload' button. At the bottom of the interface, a light gray footer bar contains the text 'Developed by Elvex for DESA-ISETA'.

**Figure 4.6**

The screenshot displays a web application for sensory evaluation. At the top, a dark navigation bar contains the text 'Welcome Graciela' on the left and links for 'Panels', 'Stored Panels', 'My panels', and 'Logout' on the right. Below this, a lighter bar shows 'Activate Panel' and 'Delete Panel' links. The main content area is titled 'Sensory evaluation system' with a subtitle 'DESA, Departamento de Evaluación Sensorial de Alimentos'. The central form is titled 'Edit Panel Bread'. It features a dropdown menu set to 'by sample' with a 'Type' label. A red heading states 'You have loaded an order.xls with the following design'. Below this, a list of parameters is shown: ': Labels: Aro ,Bio ,Cel ,Dar ,Ele', ': Number of repetitions: 3', ': Number of sessions: 4', ': Number of assessors: 4', and ': Maximum number of samples per session: 4'. Another red heading is 'Assessor designation to assessor\_id:'. This is followed by four rows, each with a dropdown menu (containing 'Paula', 'Lorena', 'Guillermo', and 'MaríaJ' respectively) and a label 'Assessor 1' through 'Assessor 4'. Below this is the 'Position of measurement' section, which includes three input fields with values '0', '5', and '10', and labels 'Initial Pos.', 'Middle', and 'Final Pos.'. The final section is 'Attribute designation:'. The interface uses a clean, professional layout with a light gray background and red accents for headings.

Example 2: cheese

- Number of samples: 2
- Labels corresponding to each one of the samples: Holanda, Mardel
- Number of assessors: 5
- Number of repetitions: 2
- Maximum number of samples measured in a single session: 4

With this information a single session is all that's needed. Figure 4.7 shows the first (and unique) sheet of the Excel file that resulted from the randomization that has to be uploaded to Soldesa.

Figure 4.7

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	SES1	REP1	EVA1	MUE1	ROT1	VAS1	ORD1										
2	1	1	1	1	1	Holanda	248	1									
3	1	1	2	1	4	Mardel	224	2									
4	1	1	1	1	2	Mardel	957	3									
5	1	2	1	3	Holanda	255	4										
6	1	1	1	2	2	Mardel	957	1									
7	1	2	2	4	Mardel	224	2										
8	1	1	1	2	1	Holanda	248	3									
9	1	2	2	3	Holanda	255	4										
10	1	1	1	3	1	Holanda	248	1									
11	1	1	1	3	2	Mardel	957	2									
12	1	2	3	4	Mardel	224	3										
13	1	2	3	3	Holanda	255	4										
14	1	1	4	1	Holanda	248	1										
15	1	1	4	2	Mardel	957	2										
16	1	2	4	3	Holanda	255	3										
17	1	2	4	4	Mardel	224	4										
18	1	1	5	2	Mardel	957	1										
19	1	2	5	4	Mardel	224	2										
20	1	1	5	1	Holanda	248	3										
21	1	2	5	3	Holanda	255	4										
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	

#### 4.1.2 Naming assessors and defining measuring anchors

‘admin’ has to have already generated the assessor’s names and passwords. So here, you as Leader, name the assessors you’ll need for your panel (Figure 4.8).



Figure 4.8

Welcome Graciela

Panels | Stored Panels | My panels | Logout

Activate Panel | Delete Panel

### Sensory evaluation system

DESA, Departamento de Evaluación Sensorial de Alimentos

#### Edit Panel Bread

by sample  Type

You have loaded an order.xls with the following design

: Labels: Aro ,Bio ,Cel ,Dar ,Ele  
: Number of repetitions: 3  
: Number of sessions: 4  
: Number of assessors: 4  
: Maximum number of samples per session: 4

**Assessor designation to assessor\_id:**

Paula

 Assessor 1

Lorena

 Assessor 2

Guillermo

 Assessor 3

MaríaJ

 Assessor 4

**Position of measurement**

0

 Initial Pos. 

5

 Middle 

10

 Final Pos.

**Attribute designation:**

Soldesa is designed for assessors to measure using structured scales. You'll decide what numbers will appear on the scales at the initial, middle and end. The default values are shown in Figure 4.8 under "Position of measurement"

### 4.1.3 Attributes and descriptors

Soldesa considers an Attribute as a group of descriptors corresponding to a sensory evaluation modality; for example, Appearance, Texture, Aroma and/or Flavor. The descriptors are those corresponding to each attribute; for example, for the Appearance attribute of bread the descriptors could be: 'airy', 'white color', 'width of the crust', and 'dry'. For the flavor attribute the descriptors could be: 'sweet', 'salty', 'yeast' and 'dairy'.

To define a new Attribute, you simply click on the “New” button under “Attribute designation” (Figure 4.9). The Attribute name can be edited or deleted by clicking on the corresponding buttons (Figure 4.10).

Figure 4.9

Paula  Assessor 1

Lorena  Assessor 2

AlejandraF  Assessor 3

Luciano  Assessor 4

**Position of measurement**

0  Initial Pos. 5  Middle 10  Final Pos.

**Attribute designation:**

New

**Create Attribute**

APPEARANCE  Name

Preview panel as assessor

Figure 4.10

LorenaAssessor 2

AlejandraFAssessor 3

LucianoAssessor 4

Position of measurement

0

Initial Pos. 

5

Middle 

10

Final Pos.

Attribute designation:

New

APPEARANCE

Edit Attribute

EditDelete

APPEARANCE

Name

Select Descriptors

Descriptors--Descriptors--Create

[+]

Save

Preview panel as assessor

The first time you use Soldesa you have to create the descriptors corresponding to an Attribute. To do this you write the name of the Descriptor next to “Create”, as shown in Figure 4.11 for the ‘intensity of color’ Descriptor next to “Create”, as shown in Figure 4.11 for the ‘intensity of color’ Descriptor

**Figure 4.11**

The screenshot displays the Soldesa interface with the following sections:

- Assessor designation to assessor\_id:** This section contains four rows, each with a dropdown menu and a label: Paula (Assessor 1), Lorena (Assessor 2), Guillermo (Assessor 3), and MaríaJ (Assessor 4).
- Position of measurement:** This section includes three input fields labeled "Initial Pos.", "Middle", and "Final Pos." with values 0, 5, and 10 respectively.
- Attribute designation:** This section features a "New" button, a tab labeled "APPEARANCE", and an "Edit Attribute" section. The "Edit Attribute" section has a text input field containing "APPEARANCE" and a "Name" label. Below this is a "Select Descriptors" section with a dropdown menu labeled "Descriptors" showing "--Descriptors--", a "Create" button, and a text input field containing "intensity of color" with a "+" button next to it.
- Save:** A button located at the bottom of the "Attribute designation" section.
- Preview panel as assessor:** A section at the bottom of the interface.

After clicking on the “+” sign, the ‘intensity of color’ Descriptor appears in a window. By default the descriptor’s anchors are “Low” and “High”; but, depending on each Descriptor, these can be modified.

**Figure 4.12**

**Assessor designation to assessor\_id:**

Paula Assessor 1

Lorena Assessor 2

Guillermo Assessor 3

MaríaJ Assessor 4

**Position of measurement**

0 Initial Pos. 5 Middle 10 Final Pos.

**Attribute designation:**

New APPEARANCE

**Edit Attribute** Edit Delete

APPEARANCE Name

**Select Descriptors**

Descriptors --Descriptors-- Create

Name: intensity of color

left anchor Low right anchor High

Save

**Preview panel as assessor**

Once a Descriptor has been created it is stored under the corresponding attribute. This way you or another Leader, when creating a future panel, can access the stored Descriptors clicking on the “Descriptors” button.

If the APPEARANCE Attribute of bread has three descriptors, these can be visualized as shown in Figure 4.13. The window corresponding to each descriptor can be dragged up or down to modify the order in which they will be measured. A descriptor can also be deleted by clicking on “x”. Once satisfied with the Descriptor list and their order you should click on the “Save” button for your work to be stored.

Figure 4.13

Position of measurement

0

Initial Pos. 

5

Middle 

10

Final Pos.

Attribute designation:

New

APPEARANCE

Edit Attribute

EditDelete

APPEARANCE

Name

Select Descriptors

Descriptors --Descriptors-- Create [±]

Name: intensity of color

left anchor Low right anchor High

Name: brightness

left anchor None right anchor High

Name: regular surface

left anchor Little right anchor High

Save

Preview panel as assessor

Developed by Elvex for DESA-ISETA

Once the APPEARANCE Attribute is ready, you can continue with another Attribute. For bread this could be “MANUAL TEXTURE” (Figure 4.14).

**Figure 4.14**

**Assessor designation to assessor\_id:**

Paula Assessor 1

Lorena Assessor 2

Guillermo Assessor 3

MaríaJ Assessor 4

**Position of measurement**

0 Initial Pos. 5 Middle 10 Final Pos.

**Attribute designation:**

New APPEARANCE **MANUAL TEXTURE**

**Edit Attribute** Edit Delete

MANUAL TEXTURE Name

**Select Descriptors**

Descriptors --Descriptors-- Create [+]

Save

**Preview panel as assessor**

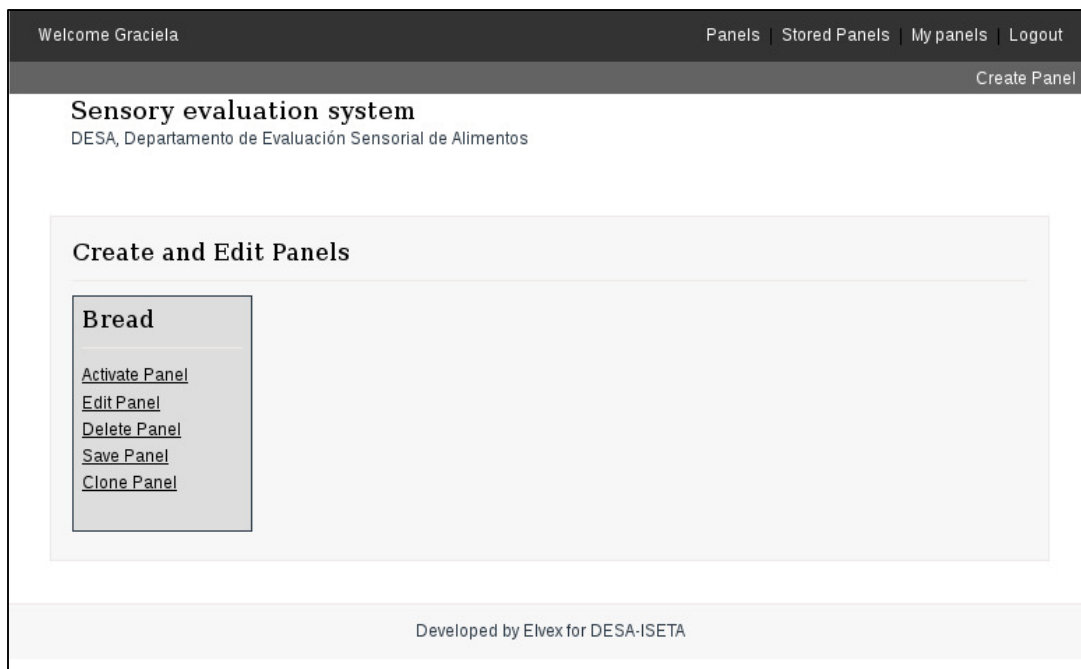
Developed by Elvex for DESA-ISETA

In the lower part of Figure 4.14 the “Preview the panel as assessor” button can be seen. Once all the Attributes and their descriptors have been created, visualizing how the assessor will see the measuring screens can be of interest. By clicking on “Preview the panel as assessor”, a measurement session is simulated with no actual measurements being stored.

#### 4.1.4 Panel administration

Once the panel -with Assessors, Attributes and Descriptors has been completed, you should click on the “Panels” button on the top of the screen. When you do this, the panel you have just created appears together with any others that have not been saved nor deleted, as shown in Figure 4.15.

**Figure 4.15**



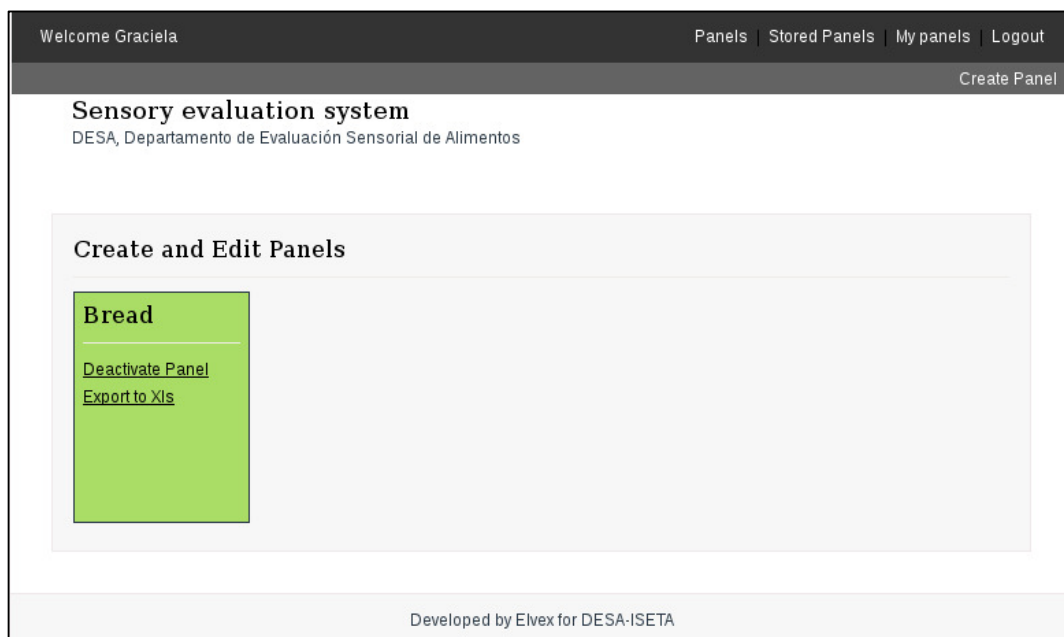


The options you have with this panel are:

- Activate panel: this will setup the panel to be measured by the Assessors.
- Edit panel: allows adjustments to be made, such as changing an Assessor (Section 4.1.2) or modifying Attributes and/or Descriptors (Section 4.1.3)
- Delete panel: eliminate the panel, it asks for confirmation before proceeding with this drastic task.
- Save panel: this removes the panel from the ones that are active and it saves it to be cloned in the future, either by the Leader who created it or by 'admin'.
- Clone panel: this action is usually done with the saved panels. Creating the Attributes and Descriptors of a panel takes time. If in the future bread is to be measured again, but with other samples and/or Assessors, the original bread panel can be cloned to be able to use the same Attributes and Descriptors without having to create them again. The cloned panel can be edited, for example, to add a new Appearance descriptor.

When the panel is activated for the samples to be measured by the Assessors, the window is modified (Figure 4.16).

**Figure 4.16**

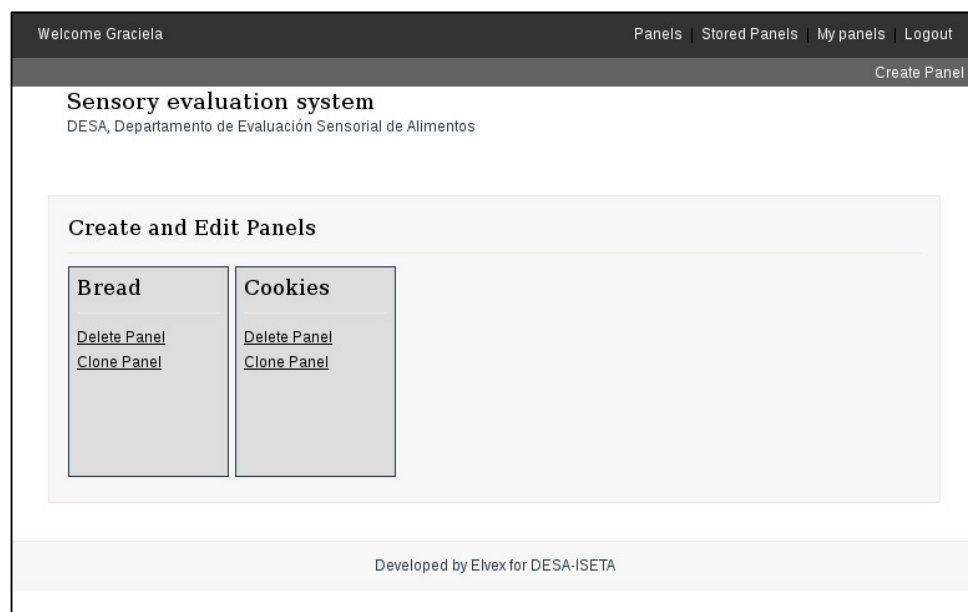


Here there are two options:

- **Deactivate Panel:** this is used when all the assessors have finished their measurements and results have been exported to an Excel file. It can occur that an Assessor misses a Session and thus for this Session his measurements will be missing. If the data are exported, they will remain as missing values symbolized with a “\*”. Before deactivating a panel, Soldesa will ask you if you have already exported the data to Excel
- **Export to Xls:** at any moment during measurements you can export data to an Excel file. You can do this to check the data as it is being generated, or to have the final data when all Assessors finish their measurements (See Section 5: Final results file)

Once the data has been exported and the panel has been deactivated, the panel can be saved to be cloned in the future. To access the saved panels you should click on the corresponding button on the upper menu and they will each appear each in a separate window (Figure 4.17).

**Figure 4.17**

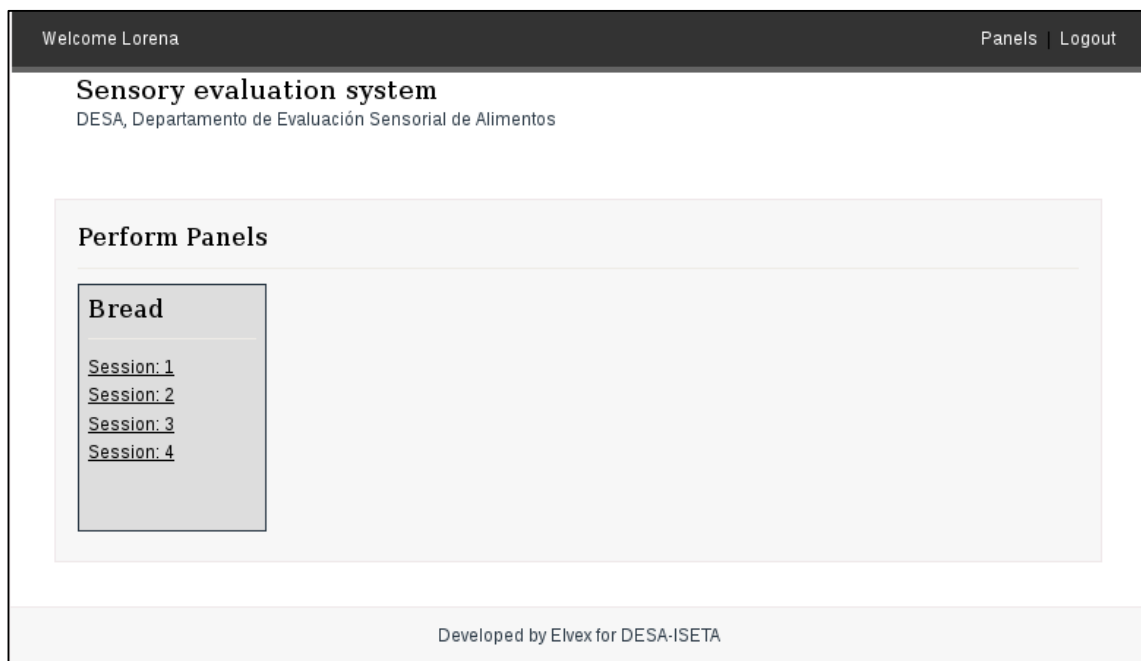


With the filed panels you can either “Delete panel” or “Clone panel”. These actions have been described above (Figure 4.17)

## 5. Assessor’s functions

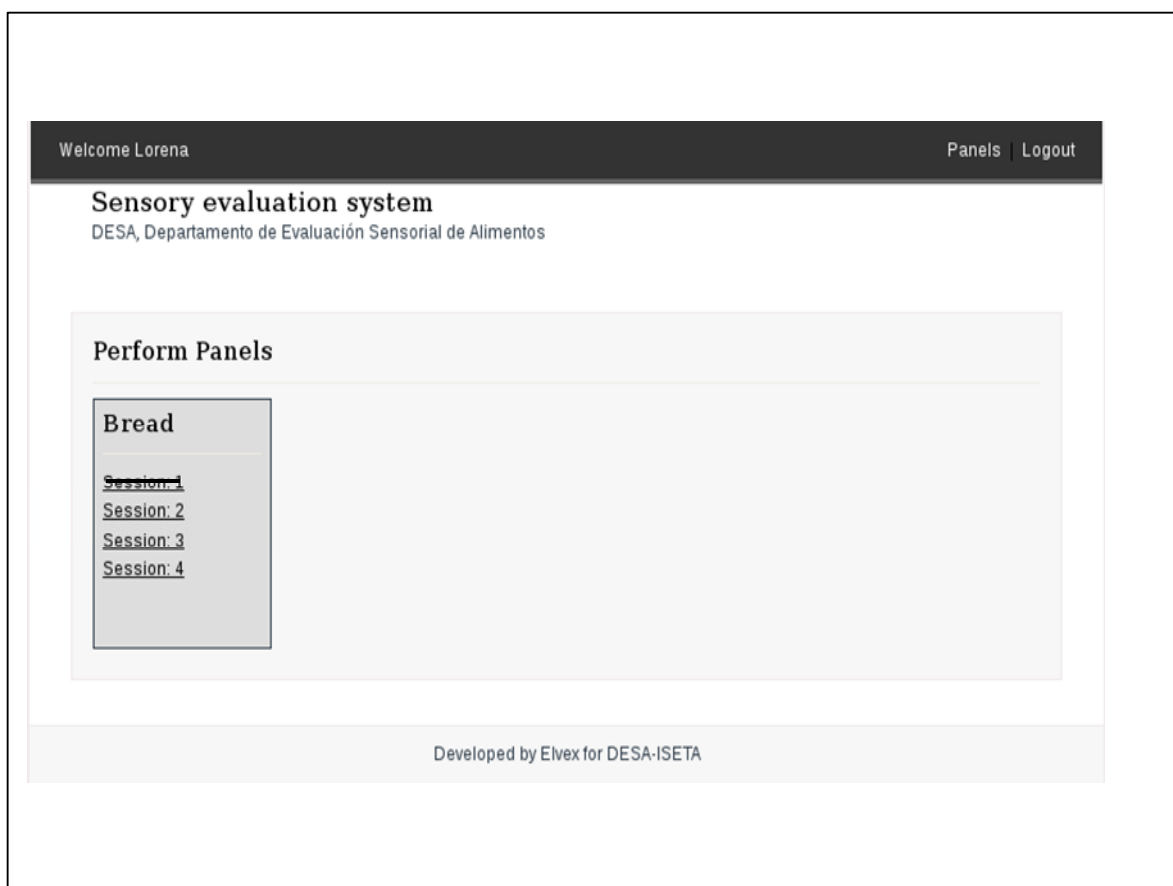
The Assessor has to have been setup as such by the ‘admin’ (Section 3.1) and have been chosen to be part of the group of Assessors by the panel Leader (Section 4.1.2). If the Assessor enters the system with her name and password (Section 5) the panels she has been set up for will appear (Figure 5.1).

**Figure 5.1**



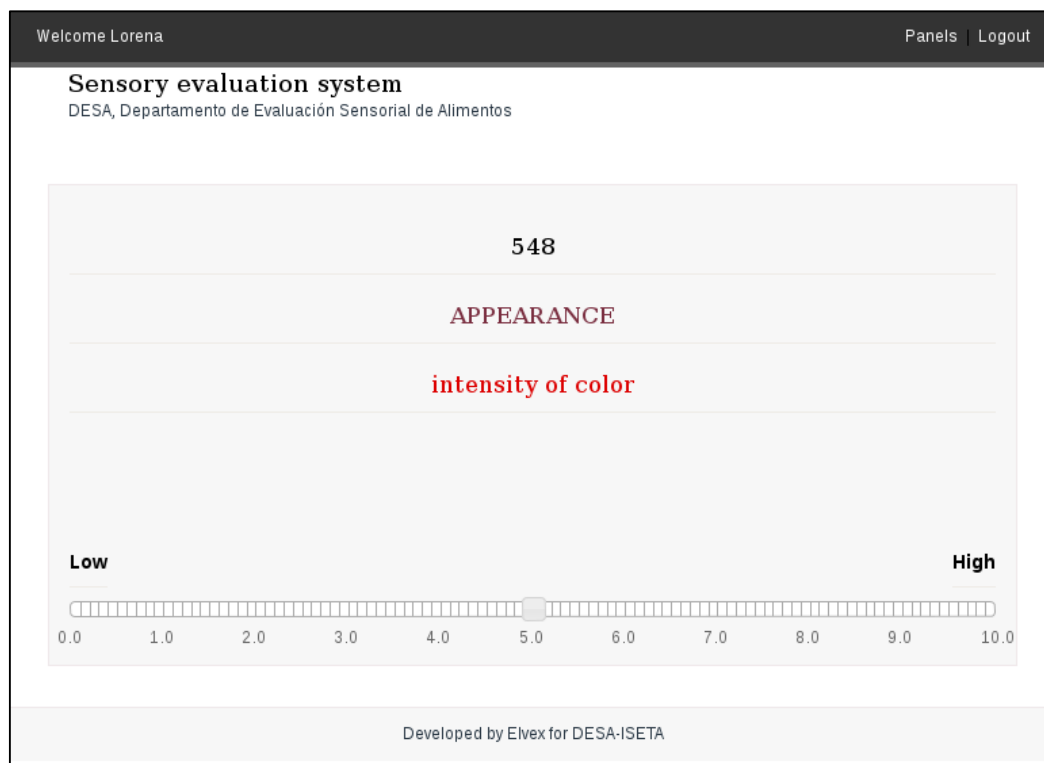
The first time he's going to measure a specific panel, all the sessions are available. Once he's measured Session 1, for example, it will appear crossed out (Figure 5.2).

**Figure 5.2**



When the Assessor clicks on the Session she wants to measure, the first Attribute and first Descriptor corresponding to the first Sample appears (Figure 5.3).

**Figure 5.3**



To start with, the cursor is at the center of the scale and the Assessor, to perform the measurement must move the cursor with his mouse till the positions he considers appropriate. If she wants to measure a value of '5', she must shift the cursor slightly for the measurement to be registered. Once satisfied with the measurement she should click on the "Next" button to measure the next Descriptor.

When the Assessor finishes with all the Attributes and Descriptors of a sample, a box appear that can be used to introduce comments (Figure 5.4).

**Figure 5.4**

The screenshot displays a web application interface for a sensory evaluation system. At the top, a dark header bar contains the text "Welcome Lorena" on the left and "Panels | Logout" on the right. Below the header, the main content area has a title "Sensory evaluation system" and a subtitle "DESA, Departamento de Evaluación Sensorial de Alimentos". The central part of the interface is a light gray box containing a "Previous" link on the left, the sample number "548" in the center, and a "Next" link on the right. Below these links is a section titled "Any comments on the sample?". Under this title is a large text input area with a light blue border. The text "The sample has moisture taste" is entered into this box. At the bottom of the interface, a dark gray footer bar contains the text "Developed by Elvex for DESA-ISETA".

At any time during a measuring Session, an Assessor can click on the “Previous” button to remember or modify a measurement.

Once the Assessor has finished with his Sessions, these appear crossed out. The panel will disappear from his screen when the Leader has exported the data to Excel and deactivated the panel (Section 3.1.4).

## 6. Final data file

In Section 3.1.4 it was shown that once all Assessors had finished their measurements, the Leader had to export the data to an Excel file. The folder and file name are up to the Leader to choose.

The results file respects the initial design, that is it will correspond to the loaded design as shown in Section 3.1.1. Figure 6.1 shows the first columns of the bread measurements.

Figure 6.1

Actividades

LibreOffice Calc

jue 11:21

</



The columns of this file are:

- SESSION: session number
- Panel\_Idpanel: panel identification code
- Name : panel Leader's name
- Date: date on which the measurements were made
- Time: time at which the measurement took place
- REP: repetition or batch corresponding to each sample
- Right anchor: upper anchor on the structured measurement scale
- Assessor: assessor number
- IdAssessor: Assessor names as chosen by the Leader
- SAMPLE: assessor number within each session
- LABEL: label (brand, treatment, etc) corresponding to each sample
- CUP: three digit code used to label the samples as served to the Assessors
- ORDER: sample presentation order.

These design columns are followed by the measurement columns, each one with the Attribute and Descriptor (Figure 6.2). The name of each Descriptor is preceded by the ATTRIBUTE. It's shown that Paula was absent in Session 1 and thus has missing values symbolized by an “\*”. The last column corresponds to commentaries.

Figure 6.2

Actividades LibreOffice Calc

Jue 11:21

tutos(2).xls - LibreOffice Calc

Archivo Editar Ver Insertar Formato Herramientas Datos Ventana Ayuda

Arial 10

A1  $\sum$  = SESSION

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	SESSION	Panel Id	Name	Date	Time	REP	Right_Anchor	ASSESSOR	IdAssessor	SAMPLE	LABEL	CUP	ORDER	APPEARAI	APPEARAI
2	1	1355a87c389	Bread	12/12/2013	10:55:05	1	10	1	Paula	3	Cel	844	1	3,4	2,8
3	1	1355a87c389	Bread	12/12/2013	10:55:48	2	10	1	Paula	3	Bio	853	2	5,8	3
4	1	1355a87c389	Bread	12/12/2013	10:56:13	1	10	1	Paula	4	Ele	948	3	6,4	7,3
5	1	1355a87c389	Bread	12/12/2013	10:56:34	1	10	1	Paula	1	Bio	928	4	7,5	2,6
6	1	1355a87c389	Bread	12/12/2013	11:02:51	1	10	2	Lorena	4	Ele	548	1	8,1	5,4
7	1	1355a87c389	Bread	12/12/2013	11:03:09	1	10	2	Lorena	3	Cel	844	2	3,1	2,9
8	1	1355a87c389	Bread	12/12/2013	11:03:25	2	10	2	Lorena	3	Bio	853	3	3,1	4,3
9	1	1355a87c389	Bread	12/12/2013	11:03:48	1	10	2	Lorena	1	Bio	928	4	8,2	1,9
10	1	1355a87c389	Bread	12/12/2013	10:50:49	1	10	3	GuillermoH	4	Ele	548	1 *	*	
11	1	1355a87c389	Bread	12/12/2013	10:50:49	1	10	3	GuillermoH	1	Bio	928	2 *	*	
12	1	1355a87c389	Bread	12/12/2013	10:50:49	2	10	3	GuillermoH	2	Bio	853	3 *	*	
13	1	1355a87c389	Bread	12/12/2013	10:50:49	1	10	3	GuillermoH	3	Cel	844	4 *	*	
14	1	1355a87c389	Bread	12/12/2013	10:50:49	1	10	4	MiriamS	1	Bio	928	1 *	*	
15	1	1355a87c389	Bread	12/12/2013	10:50:49	2	10	4	MiriamS	2	Bio	853	2 *	*	
16	1	1355a87c389	Bread	12/12/2013	10:50:49	1	10	4	MiriamS	3	Cel	844	3 *	*	
17	1	1355a87c389	Bread	12/12/2013	10:50:49	1	10	4	MiriamS	4	Ele	548	4 *	*	
18	2	1355a87c389	Bread	12/12/2013	10:57:22	1	10	1	Paula	1	Are	462	1	7,7	7,5
19	2	1355a87c389	Bread	12/12/2013	10:59:36	3	10	1	Paula	4	Bio	460	2	8,3	3,4
20	2	1355a87c389	Bread	12/12/2013	10:59:56	2	10	1	Paula	2	Cel	352	3	7,5	2,8
21	2	1355a87c389	Bread	12/12/2013	11:00:17	2	10	1	Paula	3	Ele	229	4	6,6	4,3
22	2	1355a87c389	Bread	12/12/2013	10:50:49	1	10	2	Lorena	1	Are	462	1 *	*	
23	2	1355a87c389	Bread	12/12/2013	10:50:49	2	10	2	Lorena	2	Cel	352	2 *	*	
24	2	1355a87c389	Bread	12/12/2013	10:50:49	2	10	2	Lorena	3	Ele	229	3 *	*	
25	2	1355a87c389	Bread	12/12/2013	10:50:49	3	10	2	Lorena	4	Bio	460	4 *	*	
26	2	1355a87c389	Bread	12/12/2013	10:50:49	1	10	3	GuillermoH	1	Are	462	1 *	*	
27	2	1355a87c389	Bread	12/12/2013	10:50:49	2	10	3	GuillermoH	4	Bio	460	2 *	*	
28	2	1355a87c389	Bread	12/12/2013	10:50:49	2	10	3	GuillermoH	2	Cel	352	3 *	*	
29	2	1355a87c389	Bread	12/12/2013	10:50:49	2	10	3	GuillermoH	3	Ele	229	4 *	*	
30	2	1355a87c389	Bread	12/12/2013	10:50:49	1	10	4	MiriamS	1	Are	462	1 *	*	
31	2	1355a87c389	Bread	12/12/2013	10:50:49	3	10	4	MiriamS	4	Bio	460	2 *	*	

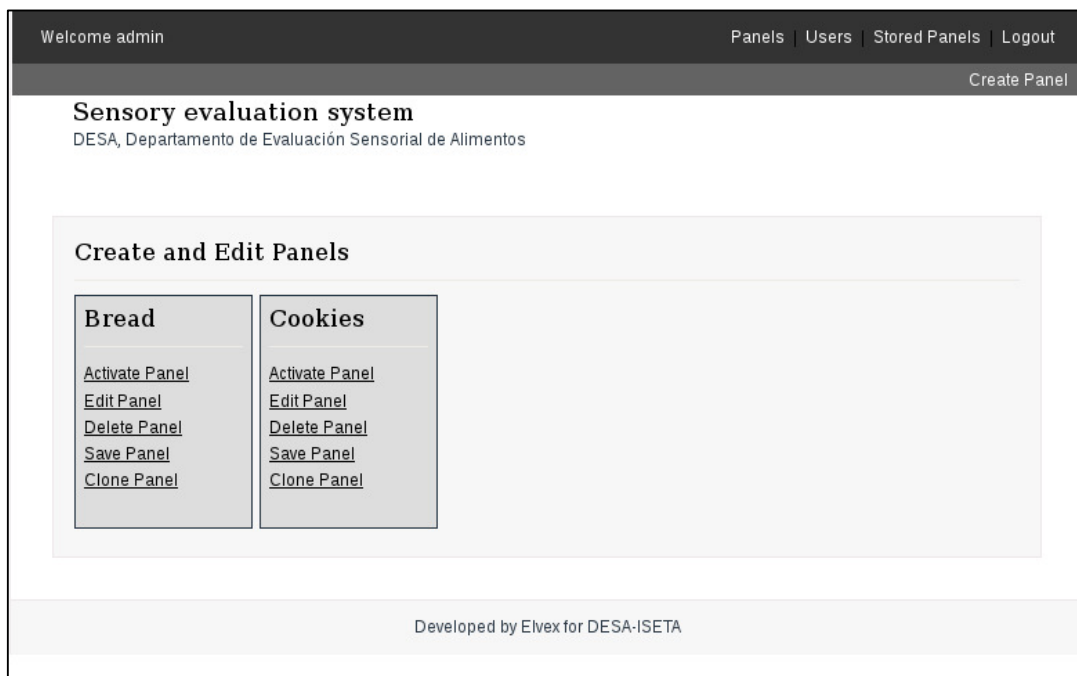
Hoja 1 / 1 PageStyle: Tutos STD Suma=0 100%

## 7. 'admin': further actions

### 7.1 Saved panels

When 'admin' clicks on the "Saved panels" button a window will appear with all the panels generated by the different leaders. As expected, when 'admin' enters the program for the first time this window will be empty as no panels have been created. Supposing the system has been in use and several panels have been created as shown in Figure 7.1.

Figure 7.1



The background color for each panel can be:

**Grey:** a non-activated panel, that is a panel that is in the process of being edited by the corresponding panel Leader, or that is ready but has not been activated for measurement by the Assessors.

**Green:** an activated panel, that is a panel that is in the measurement process.

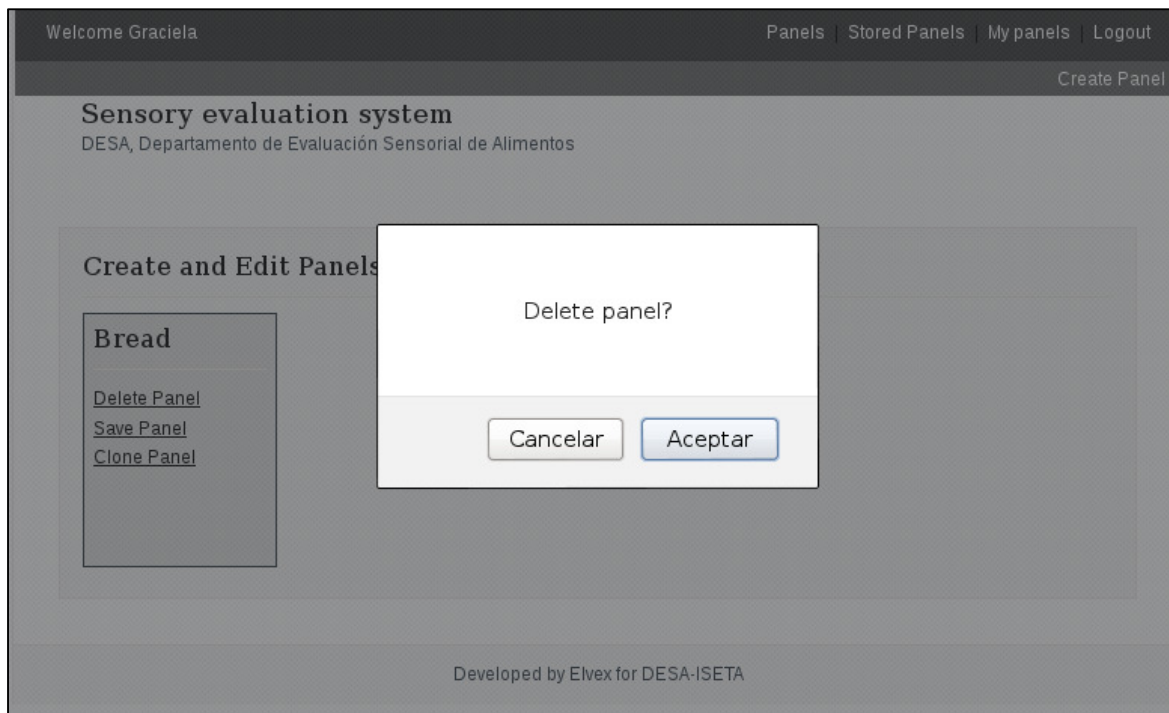
**Red:** a panel that has been measured by all Assessors.

The specific actions to be performed by 'admin' with the Saved Panels are:

### **7.2 Delete panels**

This action eliminates a panel from the system. This can also be done by the Leader who created the panel. When this option is clicked on a warning message will appear as shown in Figure 7.2.

**Figure 7.2**



### 7.3 Edit visibility

The visibility of a panel can be edited to define which Leader can see it and which not (Figure 7.3). It's natural that each Leader can see and edit her own Saved Panels; but it can also occur that a certain Leader stops working with a product and another Leader takes over. In this case 'admin' can give this new Leader visibility of the panel to save him the work of building up Attributes and Descriptors.

Figure 7.3

Welcome admin

Panels | Users | Stored Panels | Logout

## Sensory evaluation system

DESA, Departamento de Evaluación Sensorial de Alimentos

### Edit Visibility

#### Leaders

- ☐ Guillermo
- ☐ Graciela

Save

Developed by Elvex for DESA-ISETA