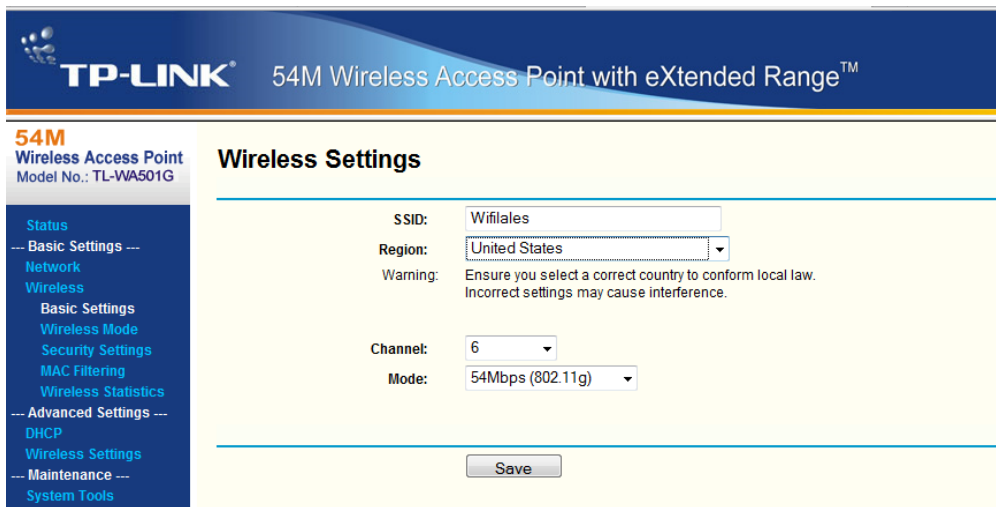


ACTIVIDAD 9 – SEGURIDAD EN LAS COMUNICACIONES INALÁMBRICAS – TEMA 2

a) Configuración de un punto de acceso inalámbrico seguro.

<http://www.tp-link.com/simulator/TL-WA501G/userRpm/index.htm>

Nos vamos a la página arriba indicada y vamos a ir a Wireless Settings y vamos a cambiar el SSID y vamos a ponerle Wifiales

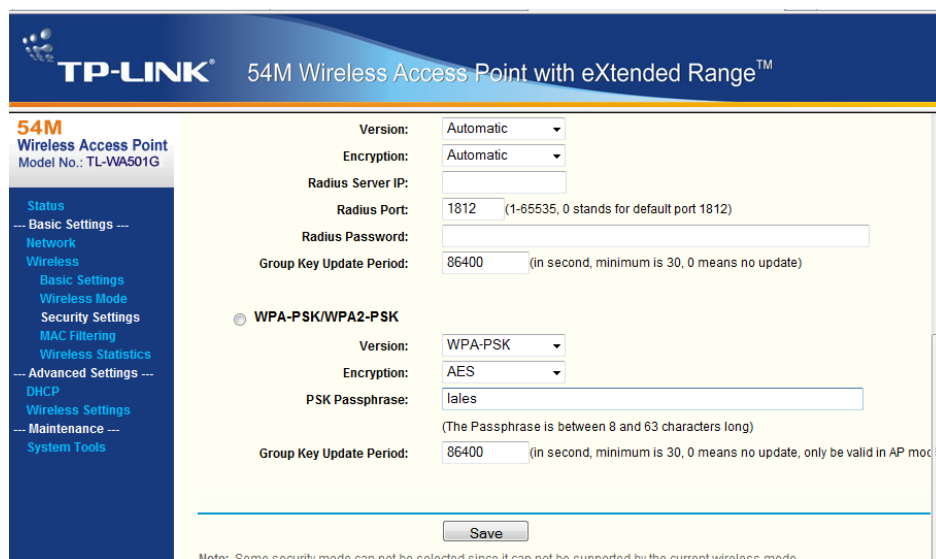


The screenshot shows the configuration page for a TP-LINK 54M Wireless Access Point. The page title is "54M Wireless Access Point with eXtended Range™". The left sidebar contains a navigation menu with the following items: Status, Basic Settings, Network, Wireless, Basic Settings, Wireless Mode, Security Settings, MAC Filtering, Wireless Statistics, Advanced Settings, DHCP, Wireless Settings, Maintenance, and System Tools. The main content area is titled "Wireless Settings" and contains the following fields:

- SSID: Wifiales
- Region: United States
- Warning: Ensure you select a correct country to conform local law. Incorrect settings may cause interference.
- Channel: 6
- Mode: 54Mbps (802.11g)

A "Save" button is located at the bottom of the form.

Ahora vamos a poner en Security Settings que encripte con WPA-PSK/WPA2-PSK y vamos a elegir la versión WPA-PSK y en Encryption vamos a elegir AES y la contraseña será lales



The screenshot shows the configuration page for a TP-LINK 54M Wireless Access Point, specifically the Security Settings section. The left sidebar is the same as in the previous screenshot. The main content area is titled "Security Settings" and contains the following fields:

- Version: Automatic
- Encryption: Automatic
- Radius Server IP: [Empty]
- Radius Port: 1812 (1-65535, 0 stands for default port 1812)
- Radius Password: [Empty]
- Group Key Update Period: 86400 (in second, minimum is 30, 0 means no update)
- WPA-PSK/WPA2-PSK
 - Version: WPA-PSK
 - Encryption: AES
 - PSK Passphrase: lales (The Passphrase is between 8 and 63 characters long)
 - Group Key Update Period: 86400 (in second, minimum is 30, 0 means no update, only be valid in AP mode)

A "Save" button is located at the bottom of the form.

Note: Some security mode can not be selected since it can not be supported by the current wireless mode

Y en la contraseña del administrador vamos a poner en Maintenance y Password un nuevo usuario y una contraseña

The screenshot shows the configuration interface for a TP-LINK 54M Wireless Access Point (Model No.: TL-WA501G). The page title is "54M Wireless Access Point with eXtended Range™". The left sidebar contains a menu with options: Status, Basic Settings, Network, Wireless, Advanced Settings, DHCP, Wireless Settings, Maintenance, System Tools, Firmware, Factory Defaults, Backup & Restore, Reboot, and Password. The main content area is titled "Password" and contains the following fields:

- Old User Name: admin
- Old Password: (empty)
- New User Name: lales
- New Password: (masked with dots)
- Confirm New Password: (masked with dots)

At the bottom of the form are two buttons: "Save" and "Clear All".

b) Configuración de un router de acceso inalámbrico CISCO LINKSYS WRT54GL, utilizando un simulador.

<http://ui.linksys.com/files/WRT54GL/4.30.0/Setup.htm>

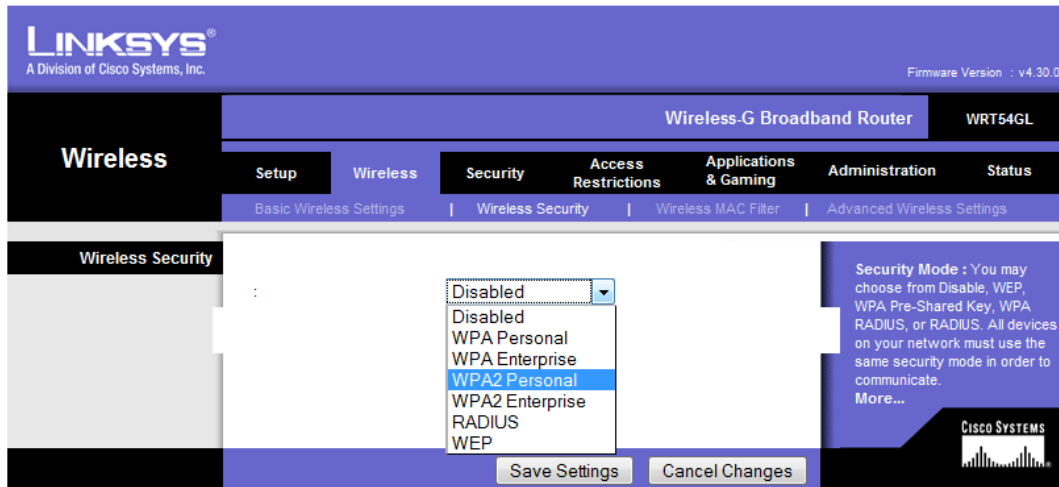
Entramos en el simulador, por medio del navegador y ponemos la dirección arriba indicada, en Wireless podemos cambiar el SSID

The screenshot shows the configuration interface for a Linksys WRT54GL Wireless-G Broadband Router. The page title is "LINKSYS A Division of Cisco Systems, Inc." and the firmware version is "v4.30.0". The main content area is titled "Wireless" and contains the following settings:

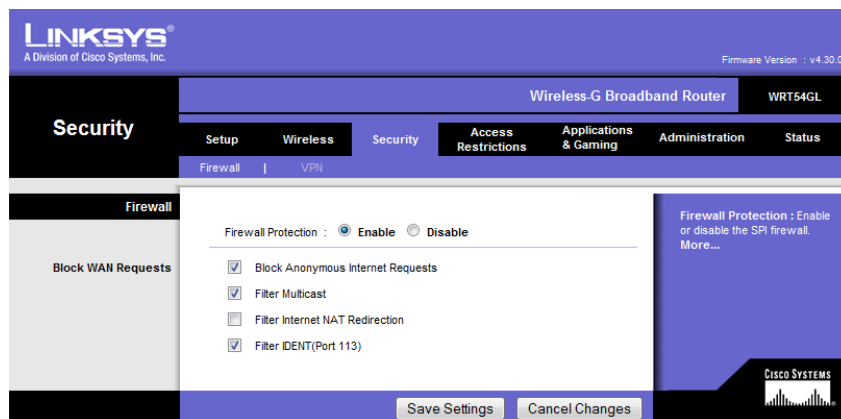
- Wireless Network Mode: Mixed
- Wireless Network Name (SSID): linksys
- Wireless Channel: 6 - 2.437GHZ
- Wireless SSID Broadcast: Enable Disable

Below the settings is a "Wireless Network" status indicator showing a green signal strength icon and the text "Status: SES Inactive". A "Reset Security" button is located below the status indicator. At the bottom of the page are two buttons: "Save Settings" and "Cancel Changes".

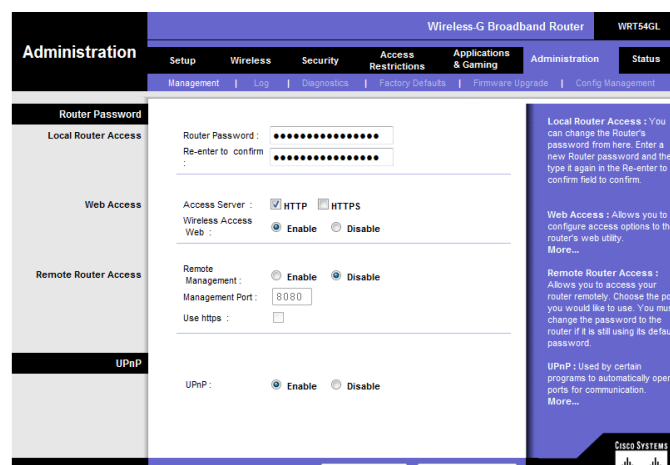
A continuación vamos a elegir Wireless Security y vamos a poner WPA2 Personal para que encripte de esta manera



Después en Security Firewall lo activamos con Enable



Y a continuación en Administration Management podemos cambiar la contraseña y la encriptar del modo elegido anteriormente



c) Configuración de un router de acceso inalámbrico CISCO Linksys seguro y un cliente de acceso inalámbrico en Windows y GNU/Linux.

- Filtro MAC, WPA, Control parental.

Conectamos el Router al pc y empezamos la configuración
Accedemos desde el navegador poniendo la dirección por defecto 192.168.1.1 y el usuario y contraseña por defecto admin

The screenshot shows the Linksys configuration interface for a WRT54GL router. The 'Setup' menu is active, and the 'Internet Setup' section is expanded. The 'Internet Connection Type' is set to 'Automatic Configuration - DHCP'. The 'Router Name' is 'WRT54GL'. The 'Local IP Address' is '192.168.1.1' and the 'Subnet Mask' is '255.255.255.0'. The 'DHCP Server' is enabled, with a 'Starting IP Address' of '192.168.1.100' and a 'Maximum Number of DHCP Users' of '50'. The 'Client Lease Time' is set to '0 minutes'. The 'Static DNS 1' is '0.0.0.0'. The 'Firmware Version' is 'v4.30.7'.

Cambiamos el nombre del Router por el de vacaciones

The screenshot shows the same Linksys configuration interface, but the 'Router Name' has been changed to 'VACACIONES'. The 'DHCP Server' is still enabled, and the 'Starting IP Address' is '192.168.1.100'. The 'Maximum Number of DHCP Users' is '50'. The 'Client Lease Time' is '0 minutes'. The 'Static DNS 1' is '0.0.0.0'. The 'Static DNS 2' is '0.0.0.0'. The 'Static DNS 3' is '0.0.0.0'. The 'WINS' is '0.0.0.0'. The 'Time Zone' is '(GMT-08:00) Pacific Time (USA & Canada)'. The 'Firmware Version' is 'v4.30.7'.

Cambiamos el SSID por el de vacaciones

LINKSYS®
A Division of Cisco Systems, Inc. Firmware Version: v4.30.7

Wireless-G Broadband Router WRT54GL

Wireless

Setup Wireless Security Access Restrictions Applications & Gaming Administration Status

Basic Wireless Settings Wireless Security Wireless MAC Filter Advanced Wireless Settings

Wireless Network

Wireless Network Mode: Mixed

Wireless Network Name (SSID): VACACIONES

Wireless Channel: 4 - 2.427GHZ

Wireless SSID Broadcast: Enable Disable

Status: SES Inactive

Reset Security

Save Settings Cancel Changes

Wireless Network Mode : If you wish to exclude Wireless-G clients, choose B-Only Mode. If you would like to disable wireless access, choose Disable. More...

CISCO SYSTEMS

Generamos una clave WEP de la palabra vacaciones

table.asp Google

LINKSYS®
A Division of Cisco Systems, Inc. Firmware Version: v4.30.7

Wireless-G Broadband Router WRT54GL

Wireless

Setup Wireless Security Access Restrictions Applications & Gaming Administration Status

Basic Wireless Settings Wireless Security Wireless MAC Filter Advanced Wireless Settings

Wireless Security

Security Mode: WEP

Default Transmit Key: 1 2 3 4

WEP Encryption: 64 bits 10 hex digits

Passphrase: vacaciones Generate

Key 1: 1AFD5C9B7A

Key 2: F9552B9B64

Key 3: EE130AE542

Key 4: D3D3A8DB9D

Save Settings Cancel Changes

Security Mode : You may choose from Disable, Pre-Shared Key, WEP, or RADIUS. All devices on the network must use the security mode in order to communicate. More...

Conectado actualmente a:

- Red no identificada Sin acceso a la red
- VACACIONES Sin acceso a Internet

Conexión de red inalámbrica

VACACIONES Conectado

ALTHIA

sarandonga

DPTOINFORMATICA

STI

linksys

Abrir Centro de redes y recursos compartidos

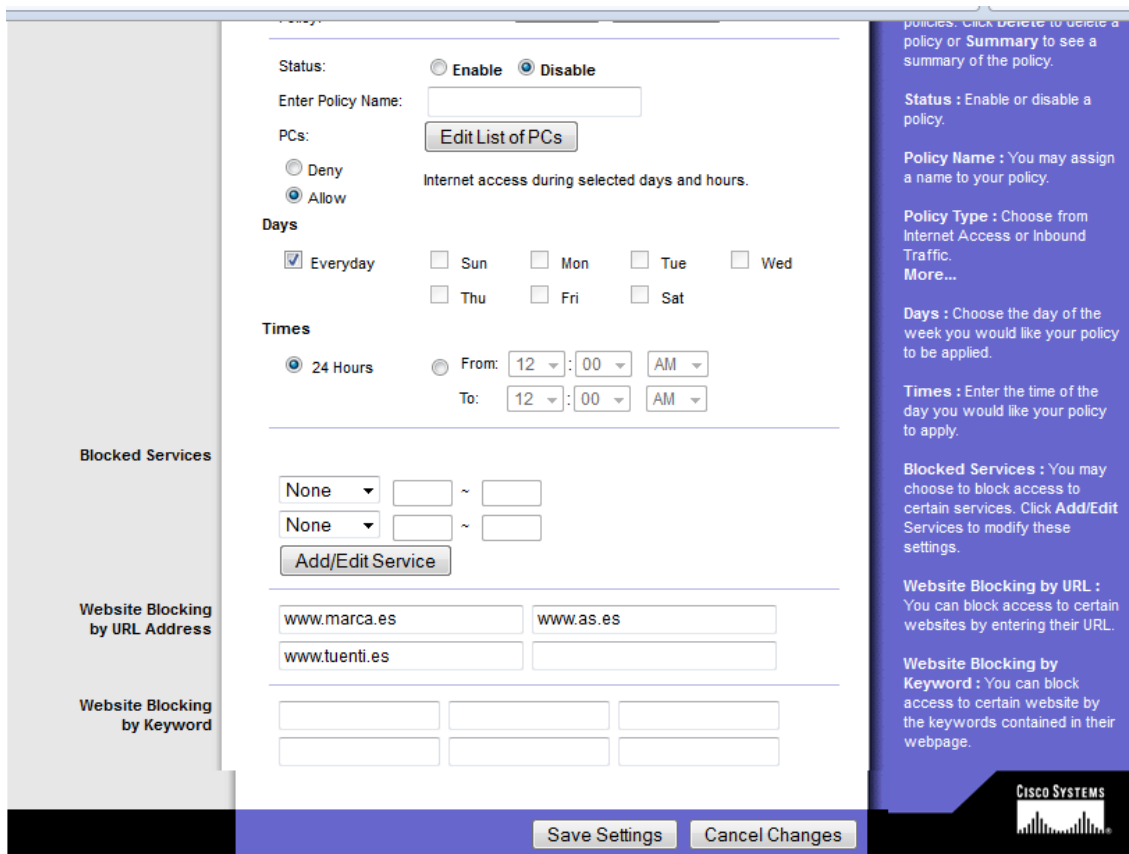
Nombre: VACACIONES
Intensidad de la señal: Ex
Tipo de seguridad: WEP
Tipo de radio: 802.11g
SSID: VACACIONES

Cambiamos la contraseña

The screenshot shows the Linksys Administration interface for a Wireless-G Broadband Router (WRT54GL). The page is titled "Router Password" and is part of the "Administration" section. The left sidebar contains "Router Password", "UPnP", and "Blocked Services". The main content area has several sections: "Local Router Access" with "Router Password" and "Re-enter to confirm" fields; "Web Access" with "Access Server" (HTTP checked, HTTPS unchecked) and "Wireless Access Web" (Enable selected, Disable unselected); "Remote Router Access" with "Remote Management" (Enable unselected, Disable selected) and "Management Port" (8080); and "UPnP" (Enable selected, Disable unselected). A right-hand sidebar provides explanatory text for "Local Router Access", "Web Access", "Remote Router Access", and "UPnP". The top navigation bar includes "Setup", "Wireless", "Security", "Access Restrictions", "Applications & Gaming", "Administration", and "Status".

Y ahora creamos el control parental con las restricciones que queremos

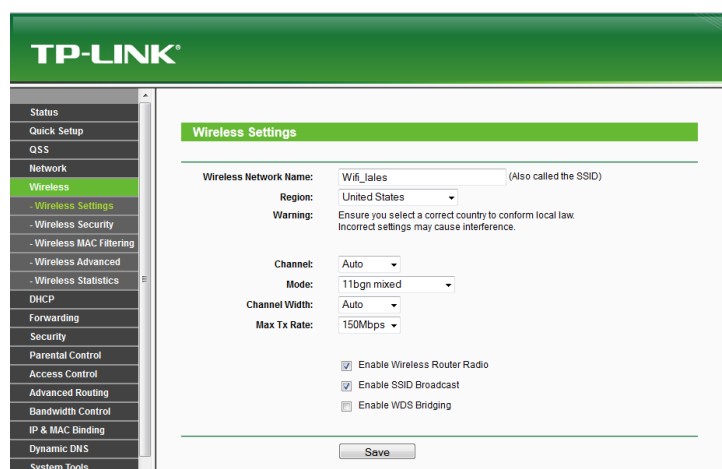
The screenshot shows the Linksys Access Restrictions interface for "Internet Access". The page is titled "Internet Access" and is part of the "Access Restrictions" section. The left sidebar contains "Internet Access" and "Blocked Services". The main content area has several sections: "Internet Access Policy" (1) with "Delete" and "Summary" buttons; "Status" (Enable unselected, Disable selected); "Enter Policy Name" field; "PCs" section with an "Edit List of PCs" button; "Deny/Allow" radio buttons (Allow selected); "Days" section with "Everyday" checked and other days unselected; "Times" section with "24 Hours" selected and "From" and "To" times set to 12:00 AM; and "Blocked Services" section with two "None" dropdown menus. A right-hand sidebar provides explanatory text for "Internet Access Policy", "Status", "Policy Name", "Policy Type", "Days", "Times", and "Blocked Services". The top navigation bar includes "Setup", "Wireless", "Security", "Access Restrictions", "Applications & Gaming", "Administration", and "Status".



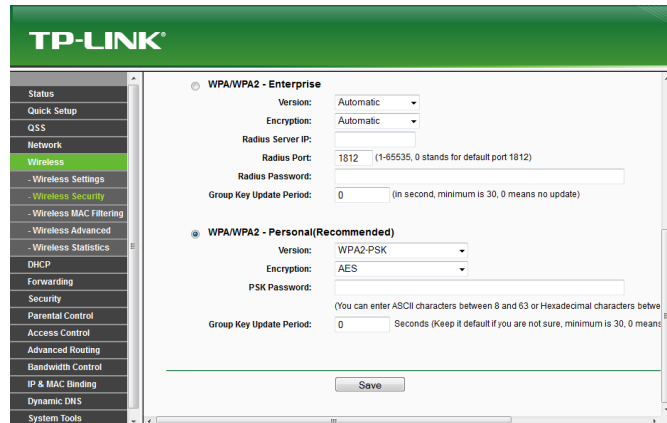
d) Configuración de un router de acceso inalámbrico TP-LINK, utilizando un simulador.

<http://www.tp-link.com/en/support/emulators/>

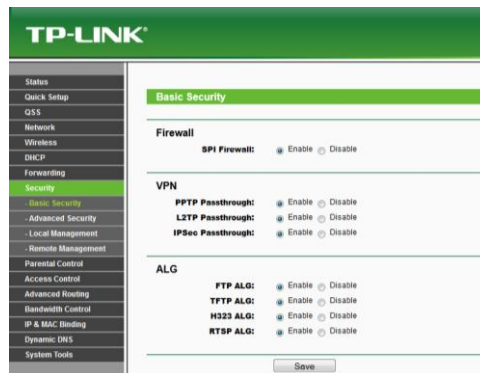
Nos vamos a la página arriba indicada y vamos a configurar el Router inalámbrico de forma simulada, para ello vamos primero a Wireless Settings y cambiamos el SSID y ponemos Wifi_lales



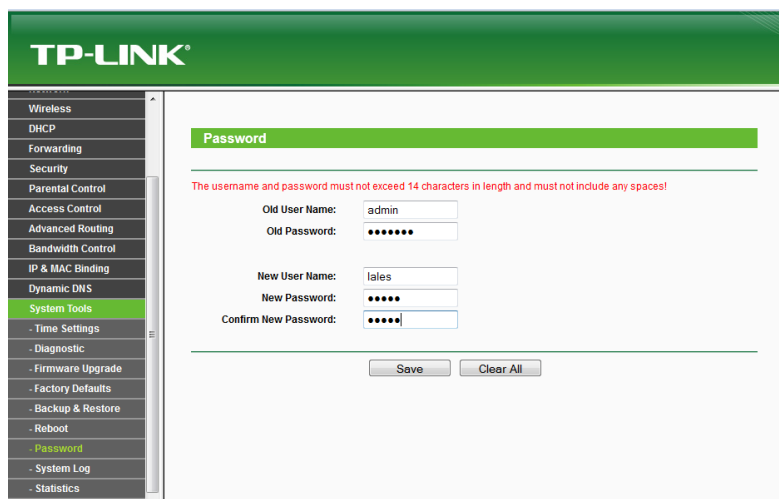
A continuación vamos a Wireless Security y vamos a cambiar la forma de cifrado y elegimos Versión WPA2-PSK y en Encryption AES



En Security, Basic Security vamos a poner Firewall en Enable

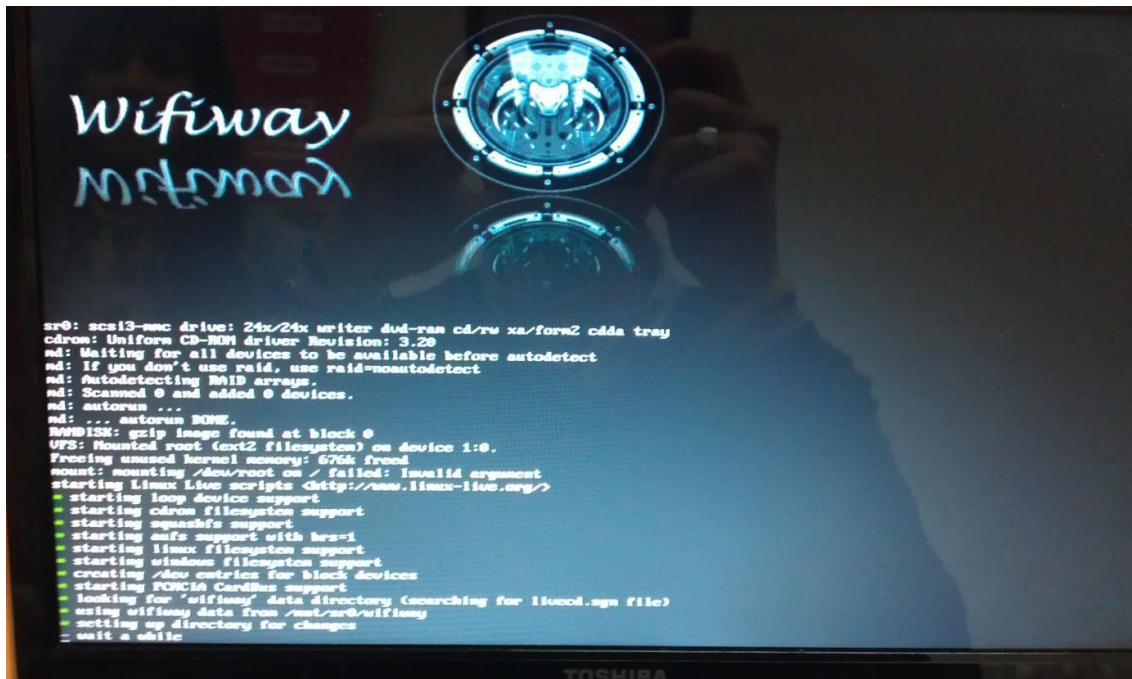


Y ahora en System Tools cambiamos la contraseña y el usuario

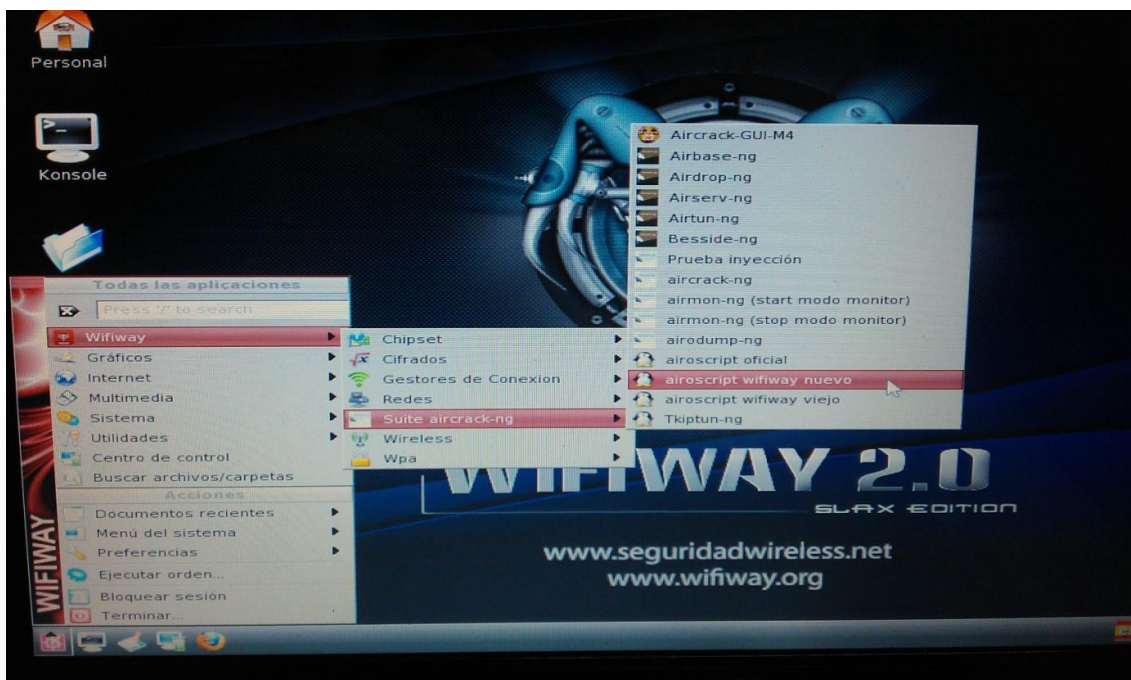


e) Realiza una auditoria Wireless para medir el nivel de seguridad de una red inalámbrica, utilizando una distribución Live (Backtrack, Wifiway, Wifislax, etc) para monitorizar y recuperar contraseñas inalámbricas WEP.

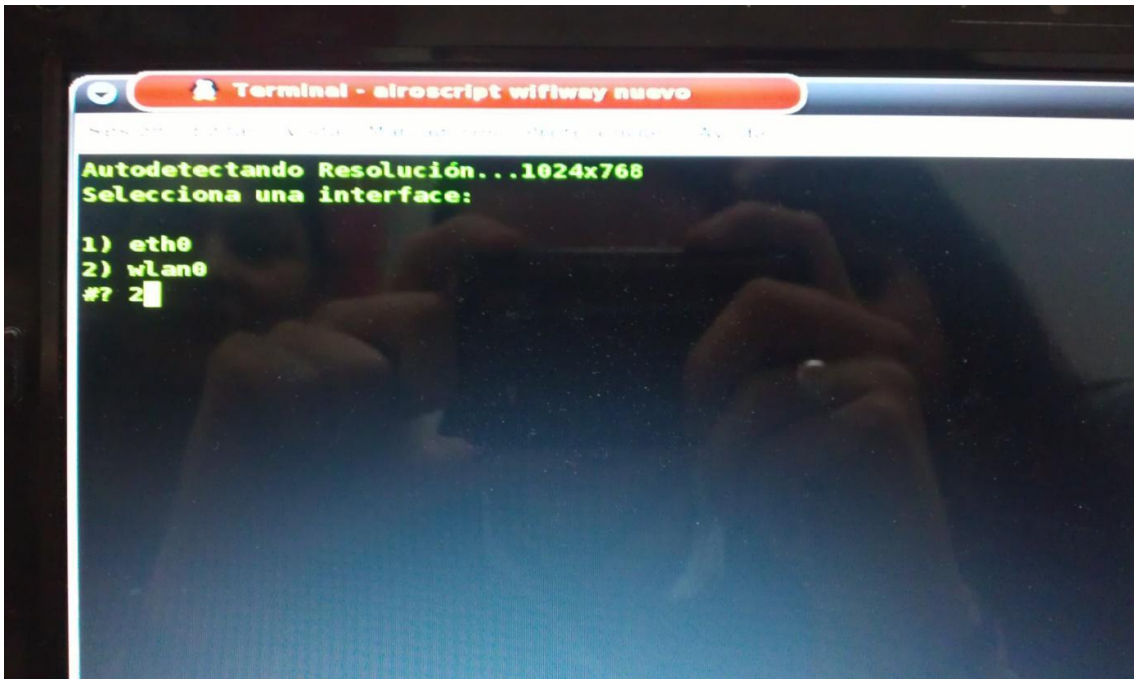
Introducimos el CD para que el ordenador arranque desde él



Una vez en la pantalla principal nos vamos al menú de inicio

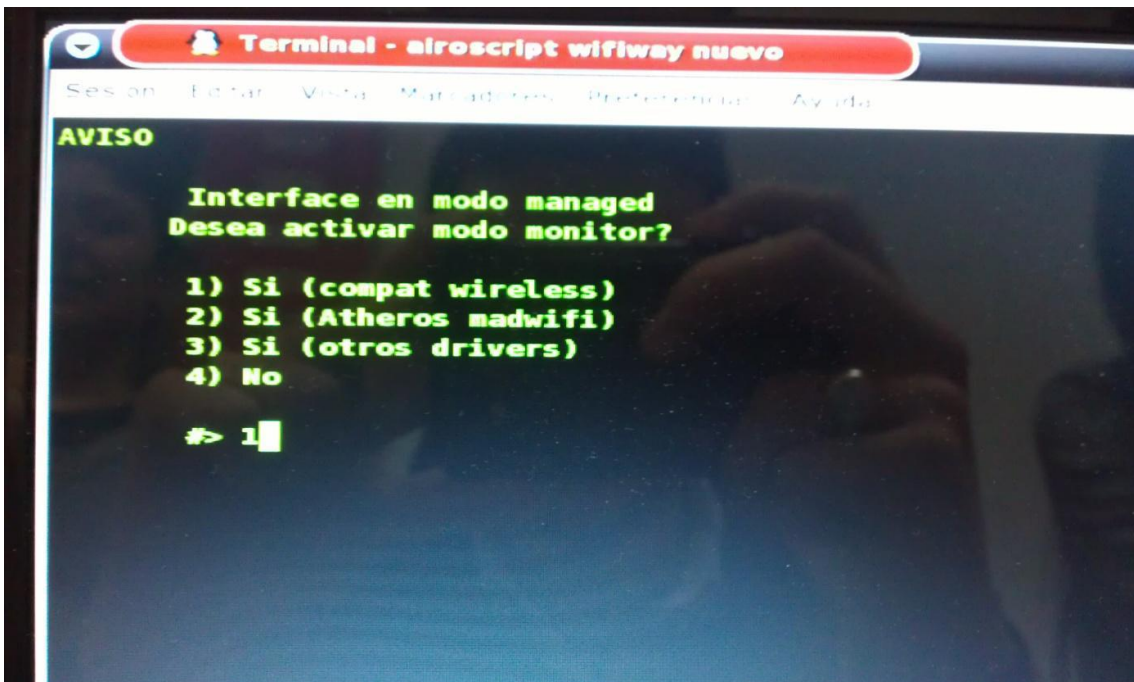


Elegimos la opción wlan0



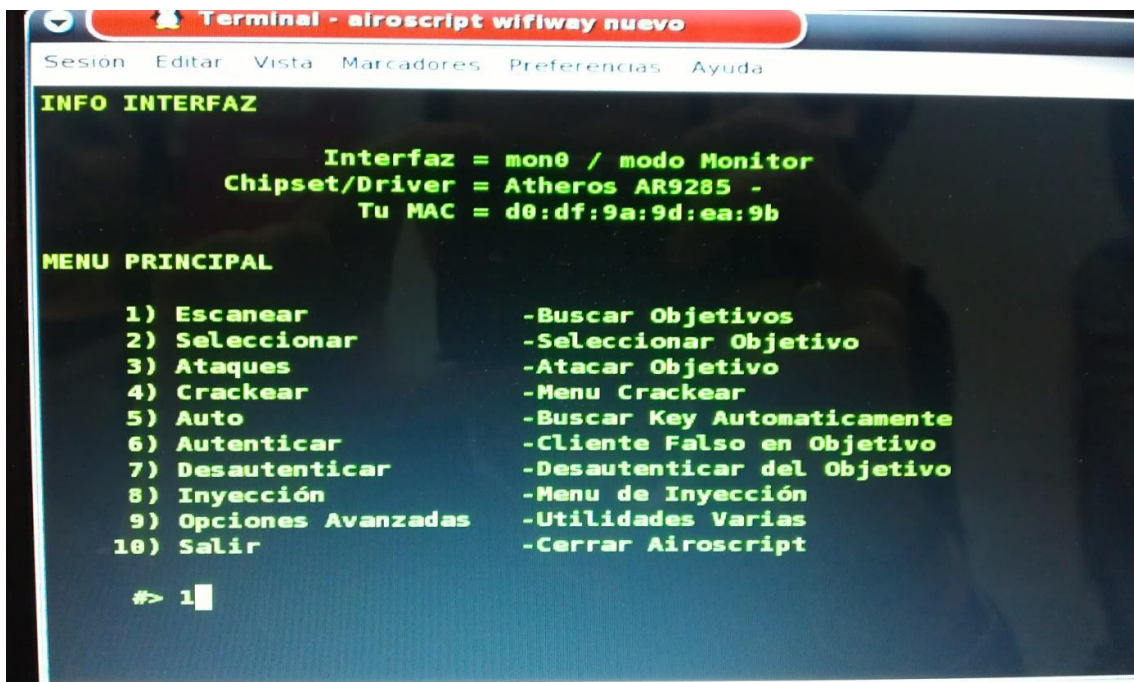
```
Terminal - airoscript wifiway nuevo
Autodetectando Resolución...1024x768
Selecciona una interface:
1) eth0
2) wlan0
#? 2
```

A continuación la opción 1, activar modo monitor



```
Terminal - airoscript wifiway nuevo
AVISO
Interface en modo managed
Desea activar modo monitor?
1) Si (compat wireless)
2) Si (Atheros madwifi)
3) Si (otros drivers)
4) No
#> 1
```

Ahora la opción Escanear, 1



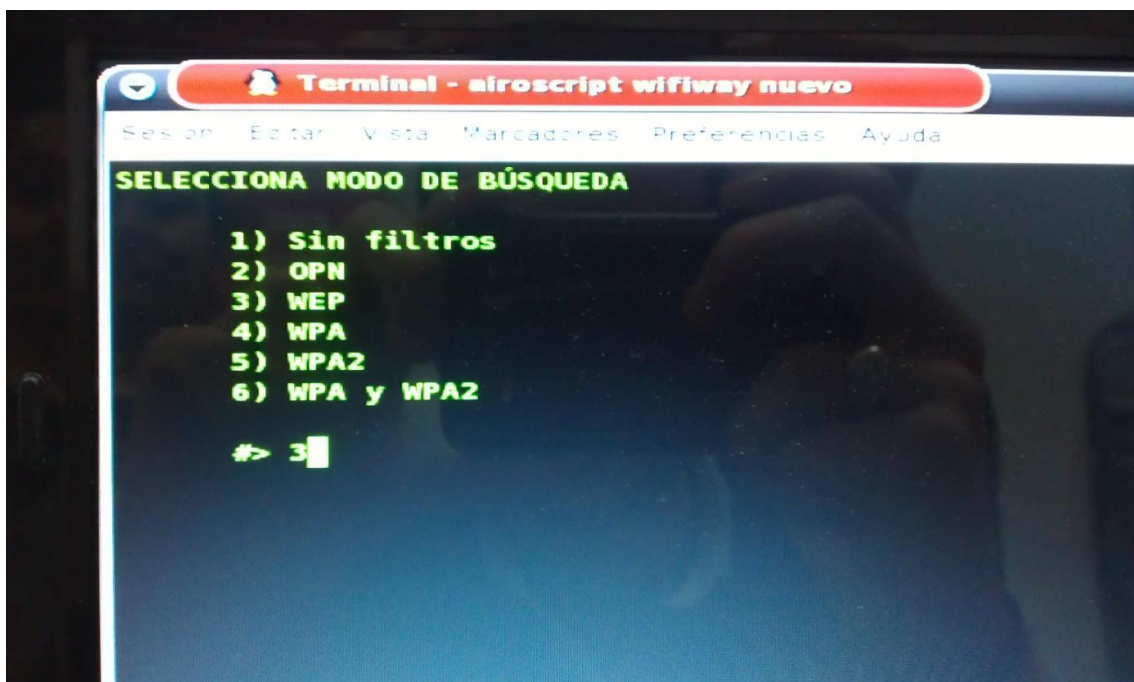
```
Terminal - airoscript wifiway nuevo
Sesion  Editar  Vista  Marcadores  Preferencias  Ayuda
INFO INTERFAZ
      Interfaz = mon0 / modo Monitor
Chipset/Driver = Atheros AR9285 -
      Tu MAC = d0:df:9a:9d:ea:9b

MENU PRINCIPAL

1) Escanear           -Buscar Objetivos
2) Seleccionar        -Seleccionar Objetivo
3) Ataques            -Atacar Objetivo
4) Crackear           -Menu Crackear
5) Auto               -Buscar Key Automaticamente
6) Autenticar         -Cliente Falso en Objetivo
7) Desautenticar     -Desautenticar del Objetivo
8) Inyección         -Menu de Inyección
9) Opciones Avanzadas -Utilidades Varias
10) Salir             -Cerrar Airoscript

#> 1
```

Modo de Búsqueda de encriptación elegimos WEP, 3

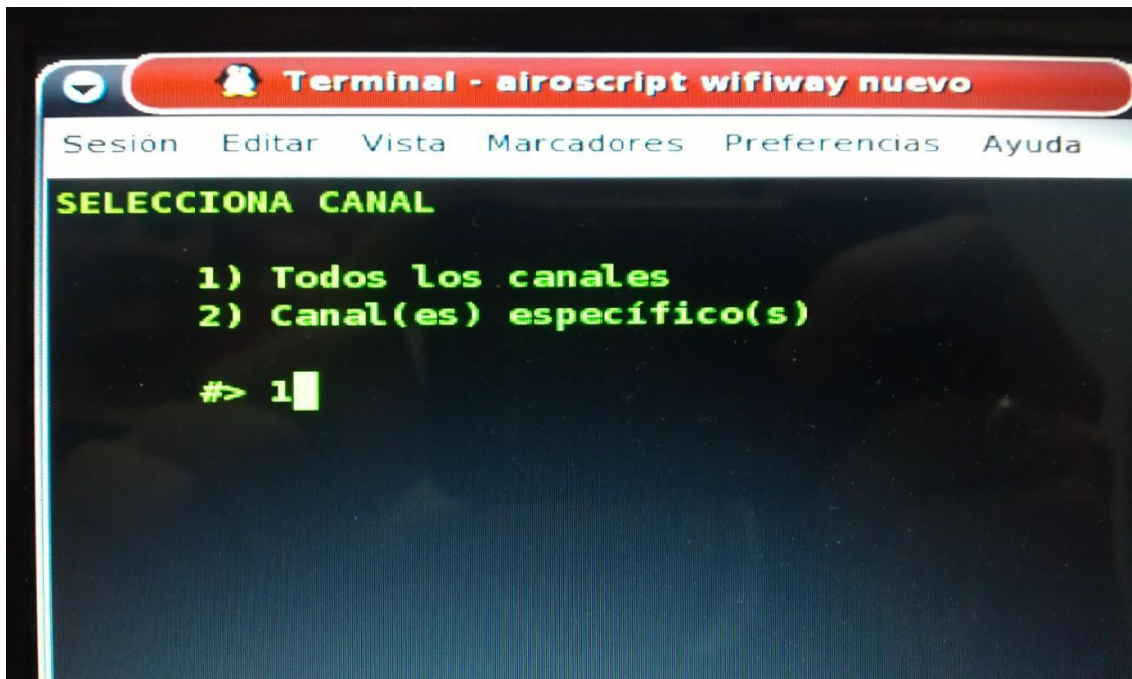


```
Terminal - airoscript wifiway nuevo
Sesion  Editar  Vista  Marcadores  Preferencias  Ayuda
SELECCIONA MODO DE BÚSQUEDA

1) Sin filtros
2) OPN
3) WEP
4) WPA
5) WPA2
6) WPA y WPA2

#> 3
```


Que busque en todos los canales



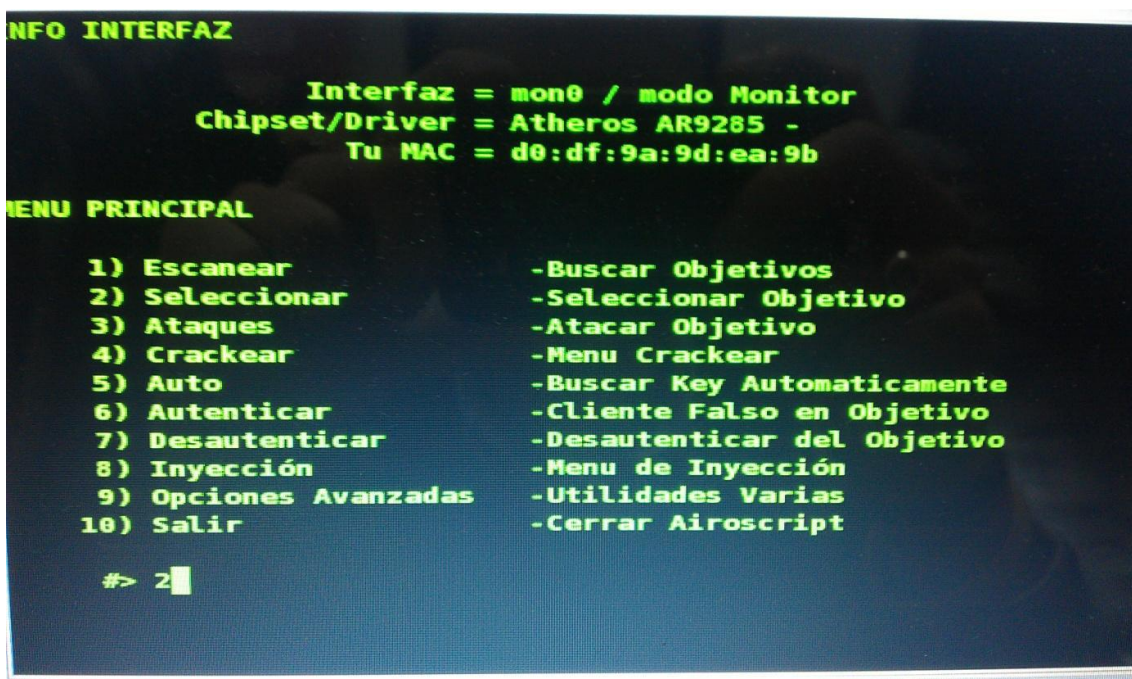
```
Terminal - airoscript wifiway nuevo
Sesión  Editar  Vista  Marcadores  Preferencias  Ayuda

SELECCIONA CANAL

1) Todos los canales
2) Canal(es) específico(s)

#> 1
```

Ahora vamos a seleccionar objetivo



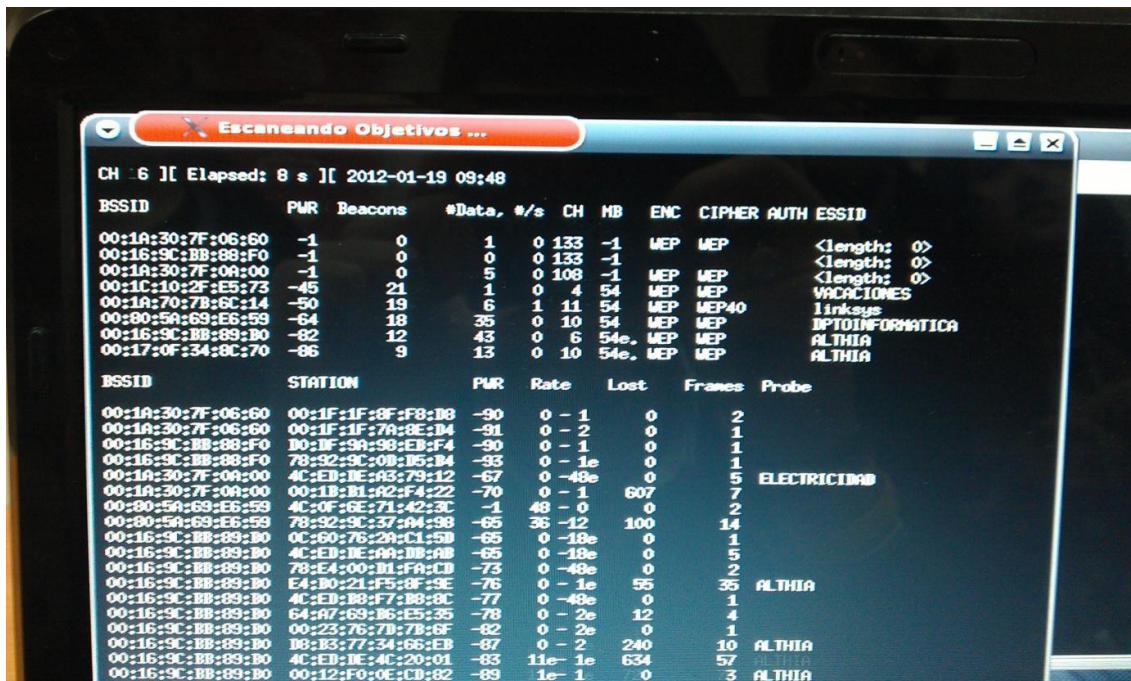
```
INFO INTERFAZ

Interfaz = mon0 / modo Monitor
Chipset/Driver = Atheros AR9285 -
Tu MAC = d0:df:9a:9d:ea:9b

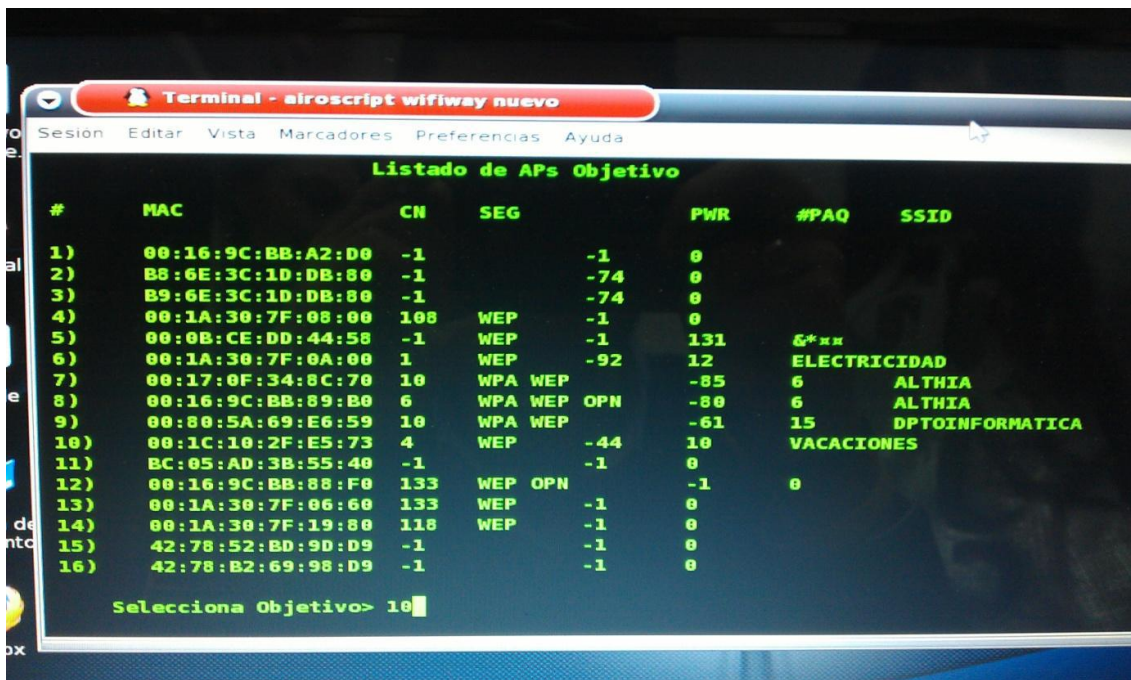
MENU PRINCIPAL

1) Escanear           -Buscar Objetivos
2) Seleccionar        -Seleccionar Objetivo
3) Ataques            -Atacar Objetivo
4) Crackear           -Menu Crackear
5) Auto               -Buscar Key Automaticamente
6) Autenticar         -Cliente Falso en Objetivo
7) Desautenticar     -Desautenticar del Objetivo
8) Inyección          -Menu de Inyección
9) Opciones Avanzadas -Utilidades Varias
10) Salir             -Cerrar Airoscript

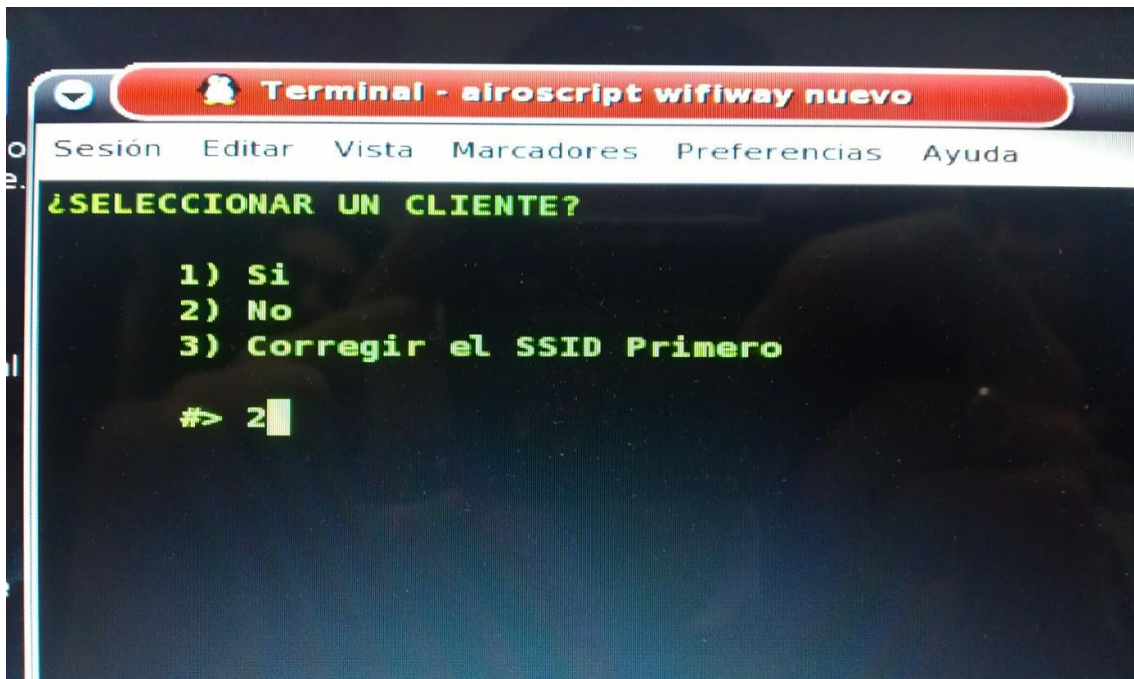
#> 2
```



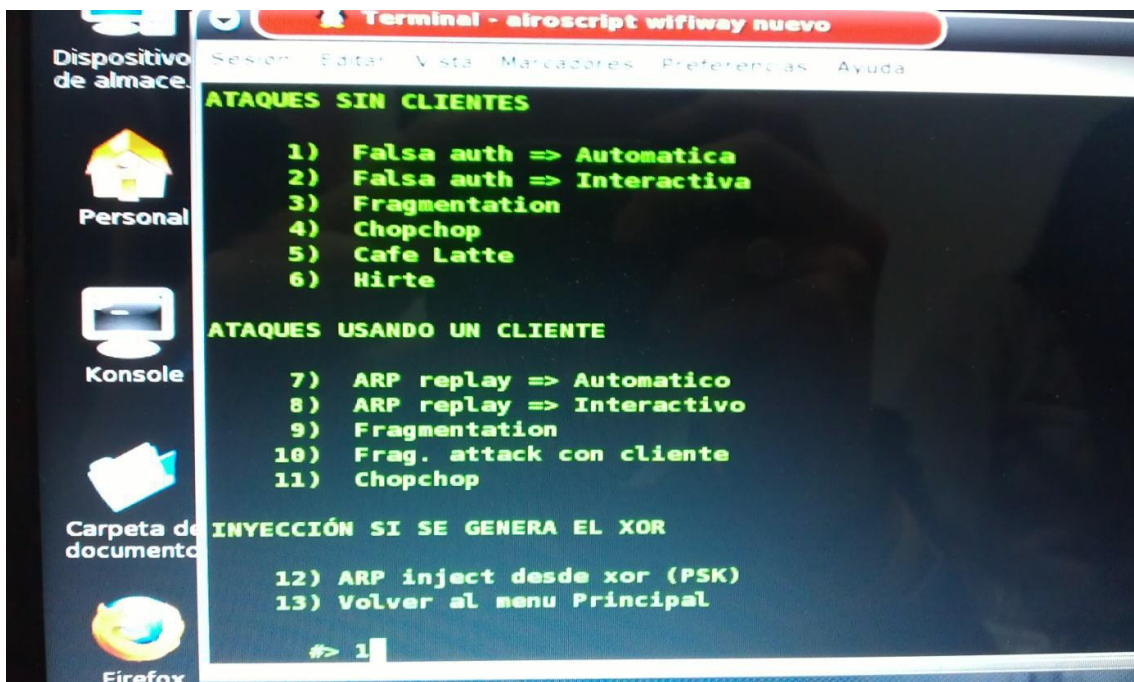
Ya ha encontrado vacaciones, y elegimos la 10



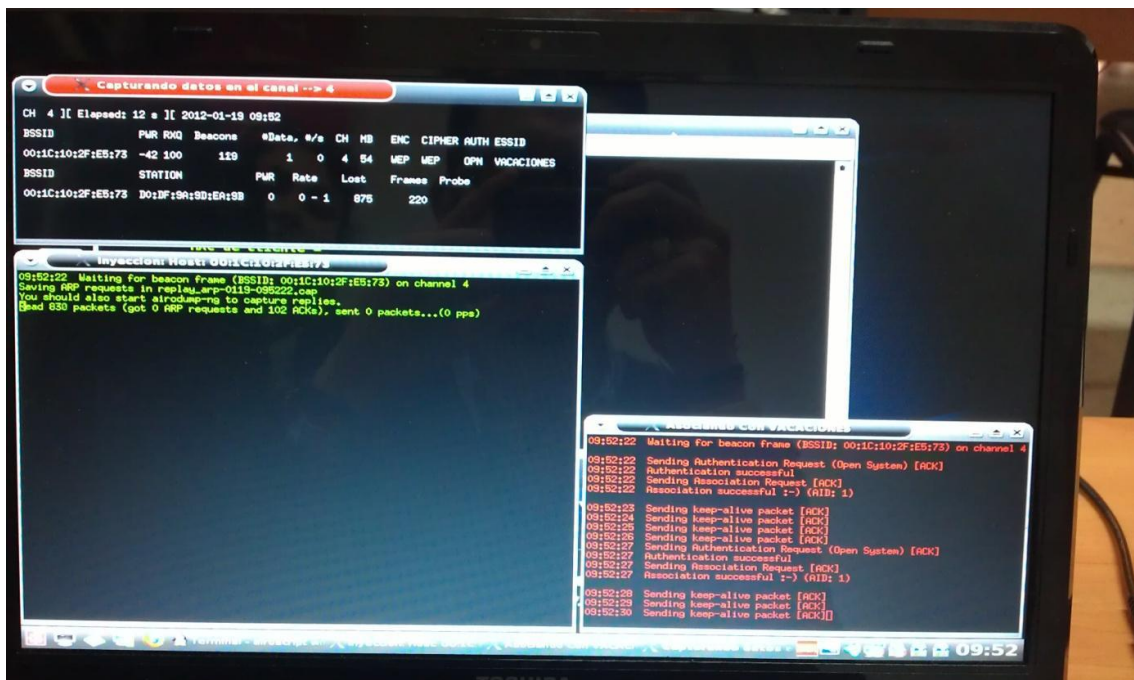
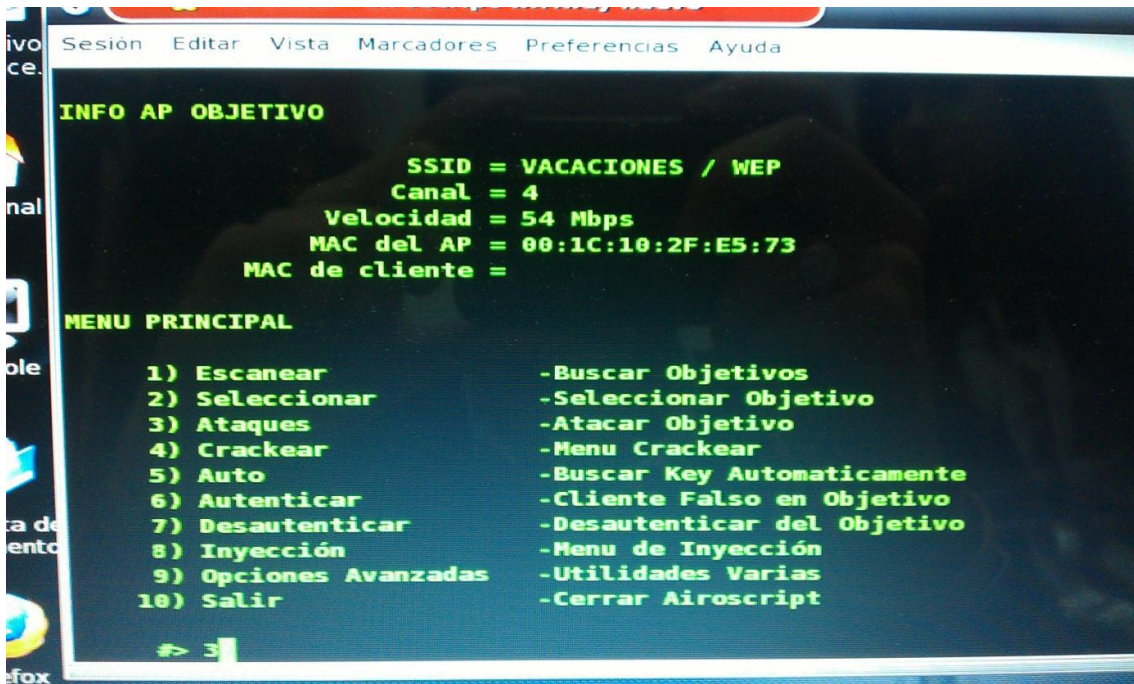
Ahora seleccionar un cliente, le decimos opción 2, no



Ahora ponemos opción automática, 1



Ahora elegimos opción 3, Ataques



Ahora le damos a opción 4, Crackear

```
INFO AP OBJETIVO
                SSID = VACACIONES / WEP
                Canal = 4
                Velocidad = 54 Mbps
                MAC del AP = 00:1C:10:2F:E5:73
                MAC de cliente =

MENU PRINCIPAL
1) Escanear           -Buscar Objetivos
2) Seleccionar        -Seleccionar Objetivo
3) Ataques            -Atacar Objetivo
4) Crackear           -Menu Crackear
5) Auto               -Buscar Key Automaticamente
6) Autenticar         -Cliente Falso en Objetivo
7) Desautenticar     -Desautenticar del Objetivo
8) Inyección         -Menu de Inyección
9) Opciones Avanzadas -Utilidades Varias
10) Salir             -Cerrar Airoscript

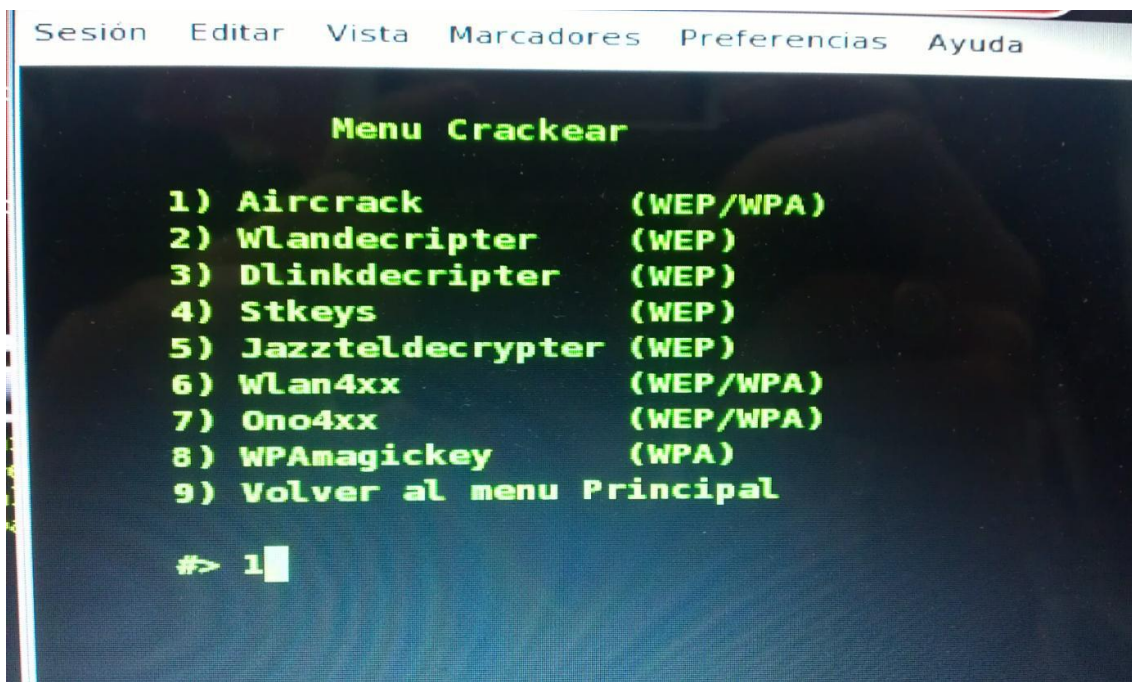
#> 4
```

```
Capturando datos en el canal --> 4
Terminal - airoscript wifiway nuevo
Sesión Editar Vista Marcadores Preferencias Ayuda

Opciones WEP CRACKING
1) aircrack-ng PTW
2) aircrack-ng Estandard
3) aircrack-ng Opciones User

#> 1
```

Ahora opción 1, para que elija Aircrack



Y ya nos ha encontrado la contraseña

