

pyScienti

Guía de usuario

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pyScienti

Es una aplicación escrita en Python que permite obtener resúmenes de información académica de investigadores, Grupos de investigación y publicaciones de manera rápida y sencilla.\

Funcionalidades

A partir del código del grupo de investigación o con los enlaces de los perfiles de CvLAC o GrupLAC permite obtener un resumen de producción, categorías, integrantes e información de interés en un archivo de Excel, extrayendo la información directamente del texto de la página web del grupo o del investigador sin acceder a bases de datos, permitiendo extraer la información, ampliarla y vincularla con otra información.

Permite obtener un resumen de producción, categorías, integrantes e información de interés registradas en la plataforma Scienti, y guardarla en un archivo de Excel, permitiendo extraer la información, ampliarla y vincularla con otra información fácilmente.

La aplicación extrae la información directamente del texto de la página web del grupo o del investigador sin acceder a bases de datos, es decir, solo accede a la información de los grupos o investigadores que se encuentra pública.

Cuenta con 3 partes principales:

- Grupos
- Investigadores
- Publicaciones

Grupos de investigación:

Es un módulo que obtiene información específicamente de grupos de investigación registrados en MinCiencias.

A partir de:

- Código del grupo de investigación.
- Enlaces de los perfiles GrupLAC.

El software extrae información directamente del GrupLAC del grupo:

- Nombre del grupo
- Categoría vigente del grupo
- Áreas de conocimiento
- Instituciones a las que se vincula el grupo

-
- Integrantes actuales
 - Líneas de investigación del grupo
 - Participación académica del grupo en programas académicos
 - Producción académica, intelectual y cultural del grupo

Permite comparar con una lista personalizada de integrantes para comparar y visualizar cuales de ellos se encuentran inscritos y activos en el grupo.

De los artículos producidos por el grupo de investigación, se obtiene información de los autores, año, revista de publicación, DOI, además de correlacionar la información con otras fuentes, tales como la clasificación actual de la revista en Publindex y SJR.

La aplicación permite exportar la información en un archivo xls separado por hojas según el tipo de información que contienen, es decir, En cada hoja se presenta una lista de productos del mismo tipo.

Investigadores

Es un módulo que permite extraer información acerca de investigadores que tengan el perfil de CvLAC público.

A partir del enlace de CvLAC del investigador, puede extraer la información individual de cada uno de los autores.

- Nombre del investigador
- Categoría vigente del investigador
- Áreas de conocimiento
- Formación
- Producción académica, intelectual y cultural del investigador.

Permite a partir de una lista de investigadores, verificar si alguno de ellos está registrado en algún grupo de investigación y obtener su información y la del grupo, o similarmente, verificar si un grupo de investigación tiene inscrito un investigador en particular o una lista de investigadores.\

Es posible obtener la información de múltiples grupos de investigación y autores simultáneamente, poniendo los códigos de los grupos o sus enlaces de GrupLAC en un archivo de Excel y cargándolo a la aplicación.

Publicaciones

Es un módulo que permite obtener la clasificación internacional y nacional de las revistas científicas (si están indexadas en publindex), y datos de los libros publicados

A partir de:

- ISSN de una o varias revistas\
- ISBN de uno o varios libros\

Se obtiene:

- La categoría en Publindex de la revista (si está indexada en el país)
- Cuartil al que pertenece internacionalmente (Scimago Journal Rank)
- Lista de autores de los libros

Utilización sin Python

La aplicación funciona con una interfaz gráfica sencilla que permite crear los archivos de los investigadores y de los grupos.

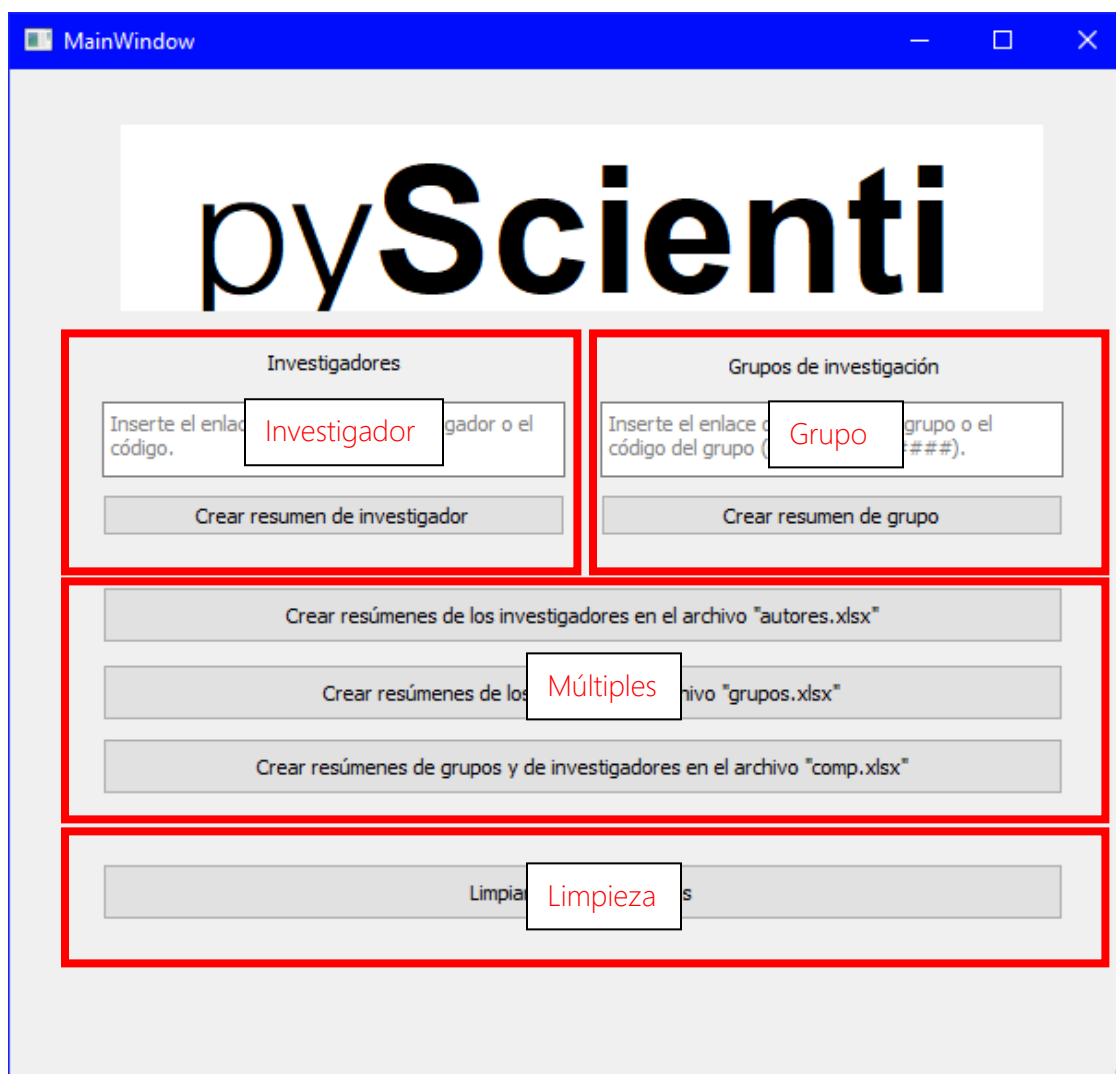
Descomprima el archivo "pyscienti_standalone.zip" en una carpeta local de su ordenador.

(**IMPORTANTE:** No descomprima el archivo en una carpeta compartida, por ejemplo, en su carpeta de Google drive, esto ocasiona que el programa se tarde demasiado en iniciar)

Para ejecutar la interfaz, basta con abrir el archivo "run.exe" que se encuentra en la carpeta **run**. Se abrirá una ventana como esta:

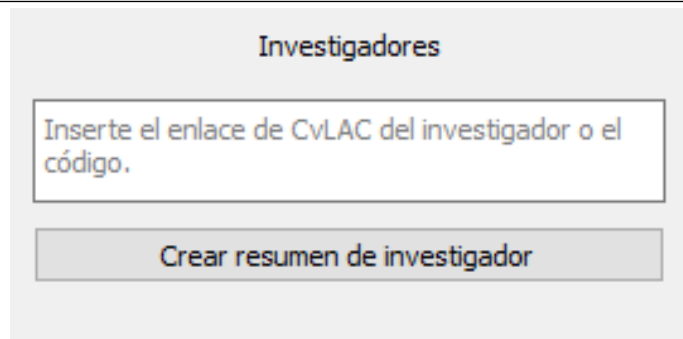


La interfaz se divide en 4 partes: Investigador, Grupo, Múltiples y Limpieza



Investigador

En esta sección se crea un archivo de Excel con la información que hay en el CvLAC del investigador. Para esto basta con escribir el enlace de la página del CvLAC, o el código en el cuadro de texto, y hacer clic en "Crear resumen de investigador"

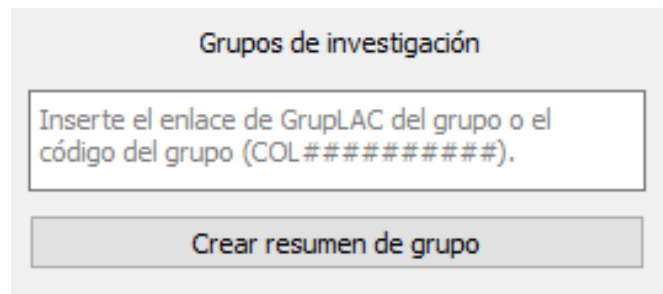


The screenshot shows a web form titled "Investigadores". It contains a text input field with the placeholder text "Inserte el enlace de CvLAC del investigador o el código." and a button labeled "Crear resumen de investigador".

El archivo creado aparece en la carpeta "Autores CvLAC", dicha carpeta se crea en la misma carpeta donde descomprimió el programa.

Grupo

En esta sección se crea un archivo de Excel con la información que hay en el GrupLAC del grupo de investigación. Para esto basta con escribir el enlace de la página del GrupLAC, o el código del grupo (COL#####) en el cuadro de texto, y hacer clic en "Crear resumen de grupo"



The screenshot shows a web form titled "Grupos de investigación". It contains a text input field with the placeholder text "Inserte el enlace de GrupLAC del grupo o el código del grupo (COL#####)." and a button labeled "Crear resumen de grupo".

El archivo creado aparece en la carpeta "Información grupos", dicha carpeta se crea en la misma carpeta donde descomprimió el programa.

Múltiples

En esta sección se puede obtener la información de múltiples investigadores y múltiples grupos de investigación.

Para múltiples investigadores:

Cree un archivo de Excel, la hoja debe llamarse "Investigadores" y las columnas para el nombre y los enlaces deben llamarse "Nombre" y "CvLAC" respectivamente.

	A	
1	Nombre	CvLAC
2	Ernesto González	http://scienti.colciencias.gov
3	Pedro Pérez	0000056463
4	Juan Gómez	https://scienti.minciencias.gov
5	Liliana Vargas	http://scienti.colciencias.gov
6		
7		
8		

La columna CvLAC puede contener:

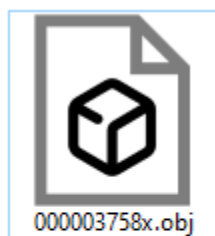
- Los últimos 10 dígitos del enlace
- El enlace completo con scienti.colciencias.gov:8081
- El enlace completo con scienti.minciencias.gov

En la interfaz haga clic en

Crear resúmenes de los investigadores en el archivo "autores.xlsx"

Se abrirá una ventana de selección de archivos, seleccione el archivo de Excel creado anteriormente.

Los archivos creados aparecen en la carpeta "Autores CvLAC", dicha carpeta se crea en la misma carpeta donde descomprimió el programa. Adicionalmente el programa creará unos archivos .obj en una carpeta llamada CvLAC. El nombre de cada archivo son los últimos 10 números del enlace del CvLAC de cada investigador.



Estos archivos se crean para no descargar de nuevo la información, en caso de que haya un error durante el proceso.

Cada investigador tarda cerca de 5 segundos en crear su resumen, si el programa indica que no responde, no intente cerrarlo, está descargando y procesando los datos.

Para múltiples grupos de investigación:

Cree un archivo de Excel, la hoja debe llamarse "Investigadores" y las columnas para el nombre y los enlaces deben llamarse "Nombre" y "GrupLAC" respectivamente.

	A	B
1	Nombre	GrupLAC
2	PAAS	https://scienti.minciencias.gov.co/gruplac/
3	GAUNAL	https://scienti.minciencias.gov.co/gruplac/
4	TAYEA	https://scienti.minciencias.gov.co/gruplac/
5	GITA	https://scienti.minciencias.gov.co/gruplac/
6		
7		
8		

La columna GrupLAC puede contener:

- El código del grupo
- El enlace completo con scienti.minciencias.gov

En la interfaz haga clic en

Crear resúmenes de los grupos en el archivo "grupos.xlsx"

Se abrirá una ventana de selección de archivos, seleccione el archivo de Excel creado anteriormente.

Los archivos creados aparecen en la carpeta "Información grupos", dicha carpeta se crea en la misma carpeta donde descomprimió el programa. Adicionalmente el programa creará unos archivos .obj en una carpeta llamada GrupLAC. El nombre de cada archivo son los últimos 14 números del enlace del GrupLAC de cada Grupo de investigación.



Estos archivos se crean para no descargar de nuevo la información, en caso de que haya un error durante el proceso.

Cada grupo de investigación tarda entre 5 y 10 segundos en crear su resumen, si el programa indica que no responde, no intente cerrarlo, está descargando y procesando los datos.

Para múltiples grupos de investigación e investigadores simultáneamente:

Cree un archivo de Excel con 2 hojas, una de ellas para los investigadores, debe llamarse "Investigadores" y las columnas para el nombre y los enlaces deben llamarse "Nombre" y "CvLAC" respectivamente. La segunda hoja debe llamarse "Grupos" y las columnas para el nombre y los enlaces deben llamarse "Nombre" y "GrupLAC" respectivamente.

	A	B
1	Nombre	CvLAC
2	Ernesto González	http://scienti.colciencias.gov.co:8081/cvlac/visualizador/generar
3	Pedro Pérez	0000056463
4	Juan Gómez	https://scienti.minciencias.gov.co/cvlac/visualizador/generarCuri
5	Liliana Vargas	http://scienti.colciencias.gov.co:8081/cvlac/visualizador/generar
6		
7		
8		

Grupos **Investigadores**

	A	B	C	D	E	F
1	Nombre	GrupLAC				
2	PAAS	https://scienti.minciencias.gov.co/gruplac/jsp/visualiza/visualizagr.jsp?nro=0				
3	GAUNAL	https://scienti.minciencias.gov.co/gruplac/jsp/visualiza/visualizagr.jsp?nro=0				
4	TAYEA	https://scienti.minciencias.gov.co/gruplac/jsp/visualiza/visualizagr.jsp?nro=0				
5	GITA	https://scienti.minciencias.gov.co/gruplac/jsp/visualiza/visualizagr.jsp?nro=0				
6						
7						
8						

Grupos
Investigadores
+

Los archivos creados aparecen en las carpetas “Información grupos” y Autores CvLAC, dichas carpetas se crean en la misma carpeta donde descomprimió el programa.

Al igual que en los casos anteriores, se crean archivos en GrupLAC y CvLAC para tener respaldo en caso de que haya un problema.

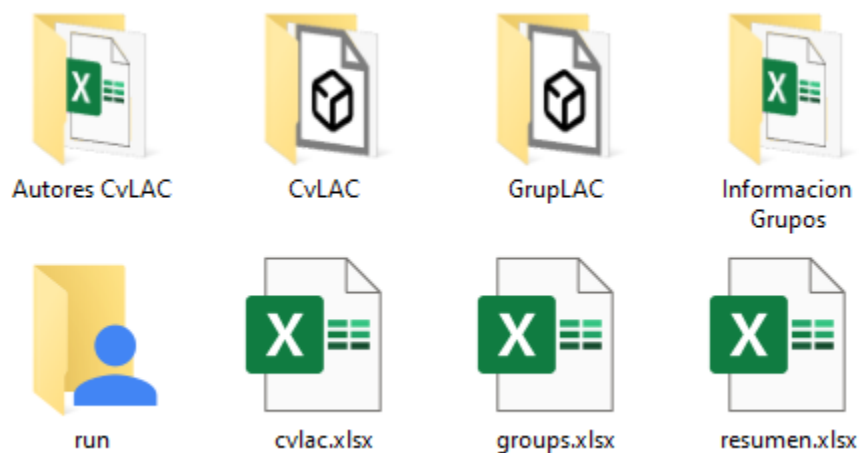
Adicionalmente, los archivos de los grupos tendrán una nueva columna, donde aparecerán los investigadores que estén en el archivo y que se encuentren activos en el grupo de investigación correspondiente.

Se crean además 3 archivos adicionales:

Cvlac.xlsx es una lista con todos los investigadores, que tiene la categoría otorgada por MinCiencias de cada uno de ellos.

Groups.xlsx es una lista de todos los grupos, con sus instituciones, numero de integrantes activos y categoría otorgada por MinCiencias.

Resumen.xlsx es un archivo con la información básica de todos los grupos.



Limpieza

Con este botón se eliminan todos los archivos creados por el programa. Puede utilizarlo luego de que termine de usar el programa o cuando necesite una información distinta a la consultada anteriormente.

Limpiar archivos antiguos

Utilización con Python

Requerimientos

- Python 3.6 o superior
- pandas
- numpy
- xlrd
- lxml
- PyQt5
- bs4
- lxmlwriter

API reference

Clases

class **Author**(*link*)

Es una clase que representa un investigador.\

Parámetros:

- *link(str)* - Enlace de CvLAC de la forma
`https://scienti.minciencias.gov.co/cvlac/visualizador/generarCurriculoCv.do?cod_rh=XXXXXXXXX
XXX`, O en su defecto, los últimos 10 dígitos del enlace.

method **Author.to_xls**(*self*)

Exporta la información del investigador en un archivo .xlsx con el nombre registrado en CvLAC

method **Author.save_group**(*self*)

Guarda el objeto del investigador a un archivo .pickle.

class Group(link)

Es una clase que representa un grupo de investigación.

Parámetros

- link(str) - Enlace de GrupLAC de la forma
*<https://scienti.minciencias.gov.co/gruplac/jsp/visualiza/visualizagr.jsp?nro=XXXXXXXXXXXXXX>
X* o en su defecto, el código del grupo COLXXXXXXXXXX

method Group.fill_group(self)

Procesa la información del grupo y la convierte en atributos de este.

method Group.get_common_inv(self, names, links)

Utilizado para comparar si en una lista hay investigadores que pertenecen al grupo y se encuentran activos.

Parámetros:

- names(*Series*) - Serie de pandas que contiene los nombres de los investigadores, en el mismo orden de *links*\
- links(*Series*) - Serie de pandas que contiene los enlaces de CvLAC de los investigadores, en el mismo orden de *names*\

method **Group.fill_authors(self)*

Crea objetos Author de los investigadores que pertenecen al grupo.

method *Group.to_xlsx(self)*

Exporta la información del grupo a un archivo .xlsx, si no se ha ejecutado **fill_group**, se hará automáticamente.

method *Group.save_group(self)*

Guarda el objeto del grupo a un archivo .pickle.

Funciones

function *get_gruplac_link(code)*

Convierte el código del grupo en su respectivo enlace de GrupLAC. El código es de la forma **COLXXXXXXXX**

Código de ejemplo, teniendo un archivo llamado comp.xlsx con 2 hojas, una llamada "Investigadores" y otra llamada "Grupos"

```
import pyscienti as pys
from pyscienti import Group, Author
import pandas as pd

lista = pd.read_excel('comp.xlsx', sheet_name = 'Investigadores', dtype=str)
lista = lista[lista['Número CVLAC'].notna()]

groups = pd.read_excel('Grupos-Investigadores-Resumido.xlsx', sheet_name = 'Grupos')
groups = groups[groups['Código'].notna()]

pys.create_author_obj(lista['Número CVLAC'], True)
pys.create_group_obj(groups['Código'])
pys.create_group_xls(lista['Nombre y Apellidos del investigador'], lista['Número CVLAC'])
pys.create_authors_xlsx()
```

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b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

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The requirement to provide Installation Information does not include a

requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

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