How to install k.LAB for your PC and Suggested Reading

14 DEC. 2021

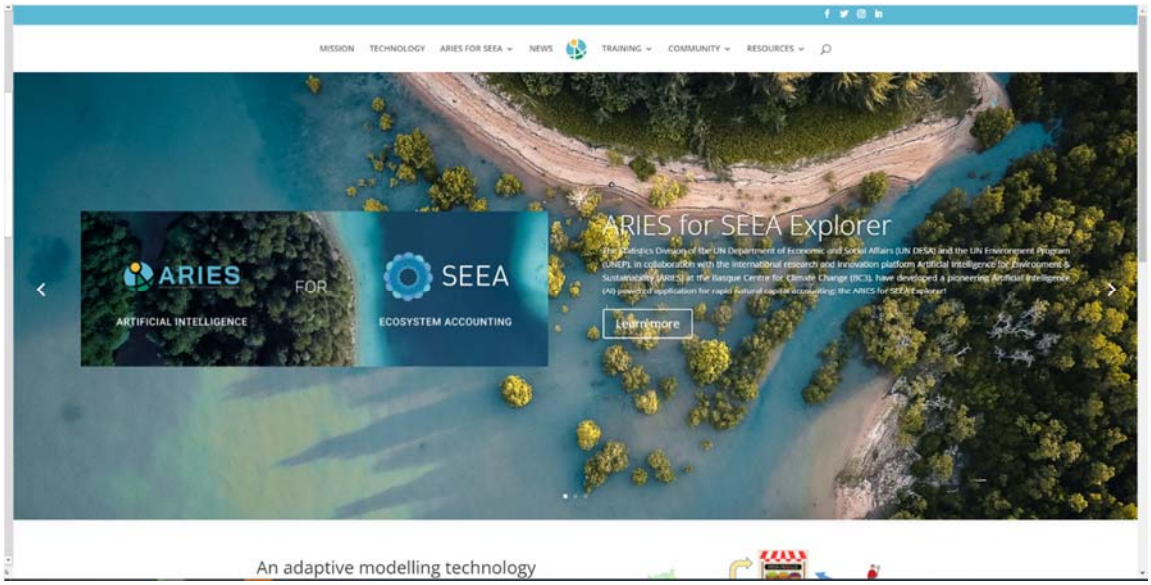
k.LAB Japan

Step 1- Access to the ARIES web page

Please access the ARIES web page from the following URL.

https://aries.integratedmodelling.org/

or search by google inputting "aries ecosystem".

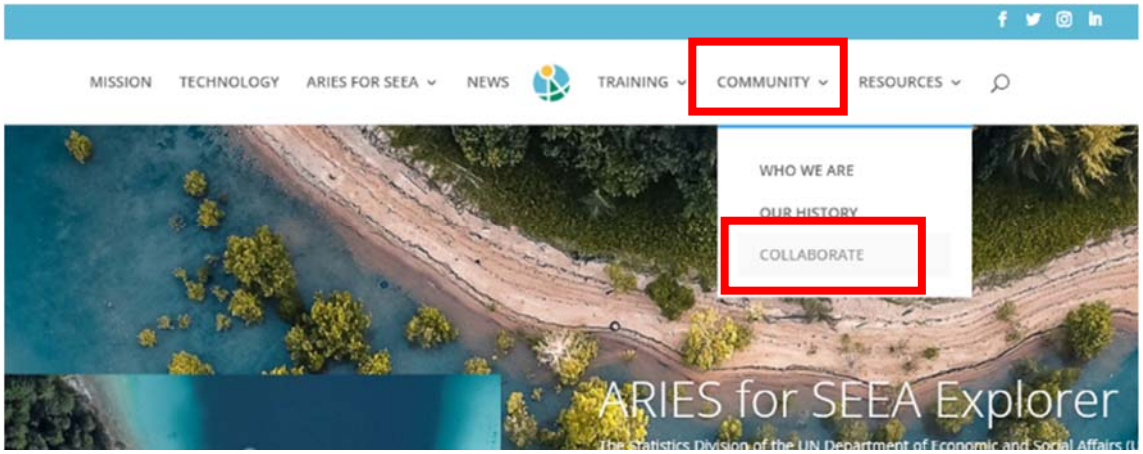


Step 2-Registration

Please register first. Before you install the k.LAB, please go to the following URL (https://aries.integratedmodelling.org/collaborate/) or click on "**COMMUNITY**" at the top page and go to the "**COLLABORATE**".

Click "**here**" on the right part of the Collaborate page to go to the k.HUB page.

Click on "**sign up**" at the bottom of the k.HUB page to register.



The Integrated Modelling Partnership

The Integrated Modelling Partnership warmly welcomes collaboration with other scientists, as well as members from the public, private, and NGO sectors. We run an annual course (the International Spring University – ISU), in which we introduce participants to our software and train them in its use. Additionally, we run personalized training workshops for larger institutions that are interested in using our software. Testimonials can be found here.

We are working on self-instructional materials for the forthcoming official public release, but meanwhile, please refer to the teaching materials of the last edition of ISU in 2019.

Collaborate

Join our wiki space where we update the documentation about the language and the software.

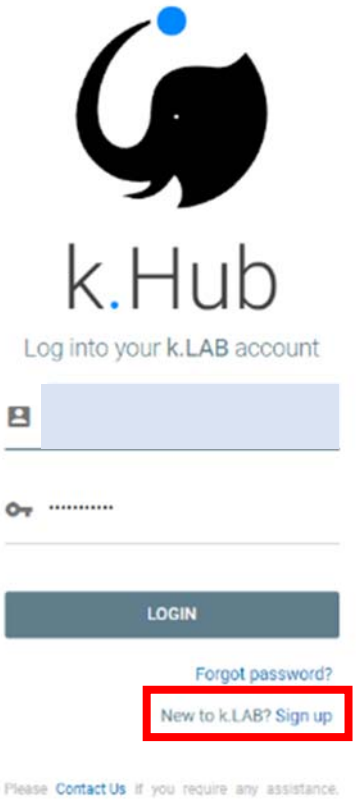
To access this space please register here first and use the same credentials. You can also ask specific question

Direct link to software download.

End user licence agreements (EULAs).

Learn more about how to get and use ARIES.

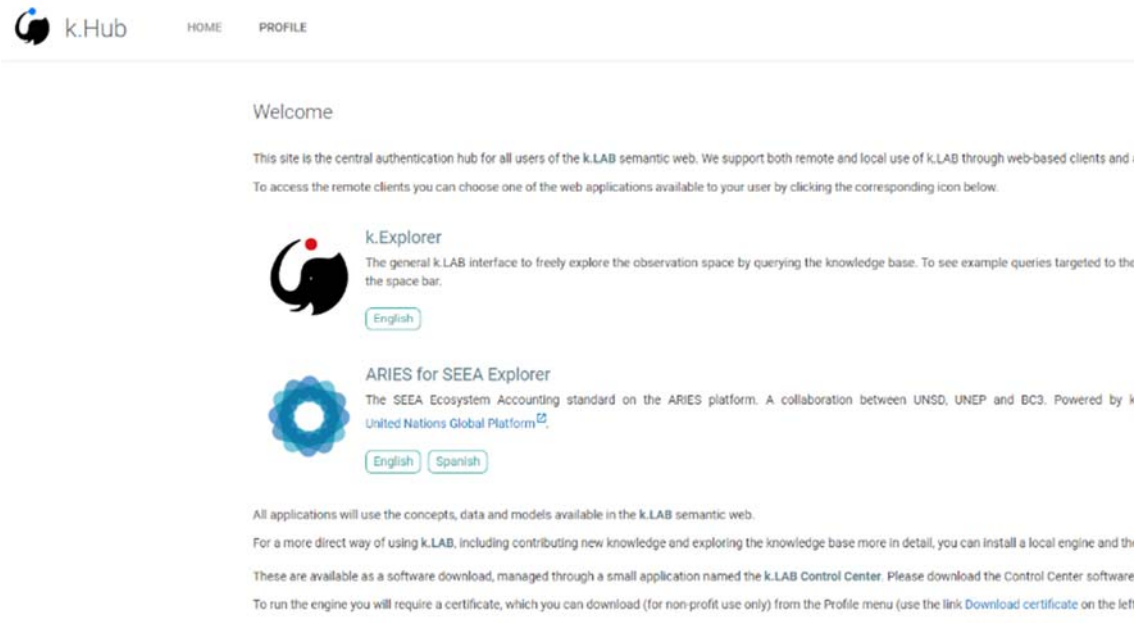
Contact us



Step 3-Using k.Explorer on your browser without install

When you log in to k.HUB, you will be taken to the "**Welcome**" page.

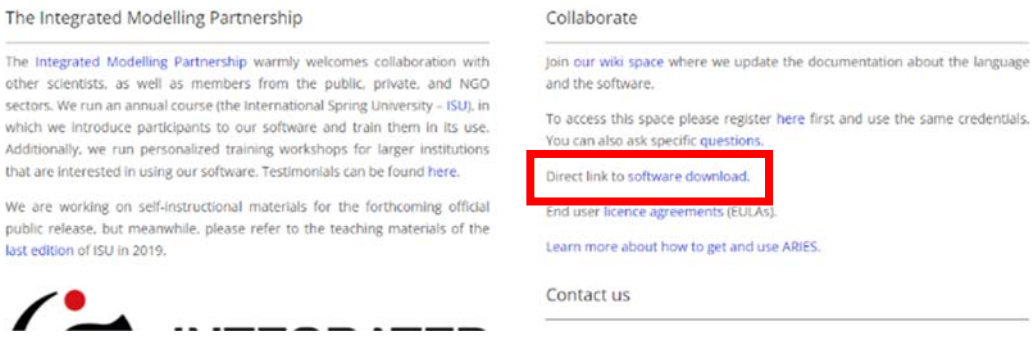
The **k.Explorer** on the "Welcom" page allows you to run applications in your browser. k.LAB does not need to be installed if you only want to use k.Explorer.



Step 4 Install k.LAB for your PC

If you want to use k.LAB as a **developer**, you will need to install the application on your PC.

First, go to the "**COLLABORATE**" page as well as Registration. Click on "**software download**" on the right part of the Collaborate page. Or you can download it from the following URL (https://integratedmodelling.org/statics/pages/gettingstarted.html).



Getting started with k.LAB

The k.LAB technology and all the projects built with it (such as ARIES) serve the needs of both *users* and *producers* of integrated data and model content. Data and model producers need specialized tools to import, annotate, and publish data and models on the k.LAB semantic web, which makes them easier to share, reuse, and link. Meanwhile, users will want to produce assessments and explore scenarios, which can be done using a web-accessible application we call *k.Explorer*. Therefore, the only tool users need to access k.LAB's linked data and models is a modern web browser, such as Chrome or Firefox.

Currently, the Integrated Modeling Partnership does not provide public access to a cloud-based installation of k.Explorer (which would let you run k.Explorer by simply opening a web browser and typing in the appropriate URL). While this will certainly change in the future, providing such services requires significant resources, this approach will probably become available to selected users before we can provide it to all.

We thus distribute a small software package called the **k.LAB Control Center**, which simplifies and manages the installation, update, and execution of a dedicated modeling engine on each user's machine. The engine provides the network-accessible k.Explorer for each user who runs it; you can connect to it through a local link in your web browser. To support the needs of students, academics, modelers, and others interested in producing and customizing data and models, the control center also provides access to k.Modeler, our integrated development environment for k.LAB content.

The rest of this page explains how to download and use the Control Center.

> ⚠ This software, like the rest of k.LAB, is a preview release intended for demonstration and use in courses or collaborations. In this early phase it is important that all updates be applied as soon as they become available. *All previous releases of both k.LAB and the k.LAB Control Center are deprecated and will no longer work.*

The k.LAB Control Center

The k.LAB Control Center manages the authentication, download, update and execution of all k.LAB products (described below), including the k.LAB engine (with its web-based user interface, k.Explorer) and the modeler's user interface (k.Modeler). On systems where you can use a Control Center installer (shown below), it is not necessary to have Java installed, as the Control Center can download it transparently if needed.

To download, install, and launch the Control Center:

On Windows

- Download the Windows installer and run it. The installer only writes to the user's **AppData** directory, so it should not require administrator permissions to run. After installation, k.LAB will be available in your application menu.

On Linux:

- Download the Debian package or sh installer and run it as normal user. The k.LAB Control Center will be available in your application menu. If your system cannot handle a Debian package or sh, proceed using the zip or tar file as described below.

On MacOSX:

Suggested reading

We recommend that you refer to several papers to get a better understanding of k.LAB.

If you click on **RESOURCES-PUBLICATION** (https://aries.integratedmodelling.org/publications/) on the top page of ARIES, you will find a list of publications related to the ARIES project and k.LAB. For a citation of the overall ARIES ecosystem services modeling methodology, please use: Villa, F., et al. 2014. A methodology for adaptable and robust ecosystem services assessment. PLOS ONE: 9(3):e91001. Also, **Martínez-López (2019)** at the top of the list is a paper about the k.LAB global ystem, so please refer to it.

And for basics of the small-hydro model is included in the following paper. GIS-based Analysis for the Energy Potential and Social Feasibility of Small-Scale Run-Off-River Hydropower in Yahagi River, Japan https://iserd.net/ijerd102/10-2-22.pdf

ARIES background and theory

For a citation of the overall ARIES ecosystem services modeling methodology, please use: Villa, F., et al. 2014. A methodology for adaptable and robust ecosystem services assessment. PLOS ONE: 9(3):e91001 (full citation below).

Martínez-López, J., K.J. Bagstad, S. Balbi, A. Magrach, B. Voigt, I. Athanasiadis, M. Pascual, S. Willcock, and F. Villa. 2019. Towards globally customizable ecosystem service models. Science of the Total Environment 650(2):2325-2336.

Villa, F., S. Balbi, I.N. Athanasiadis, and C. Caracciolo. 2017. Semantics for interoperability of distributed data and models: Foundations for better-connected information. F1000Research 6:686.

Barquin, J., L.E. Benda, F. Villa, L.E. Brown, N. Bonada, D.R. Vieites, T.J. Battin, J.D. Olden, S.J. Hughes, C. Gray, and G. Woodward. 2015. Coupling virtual watersheds with ecosystem services assessment: A 21st century platform to support river research and management. WIREs Water, doi:10.1002/wat2.1106.

Villa, F., K.J. Bagstad, B. Voigt, G.W. Johnson, I.N. Athanasiadis, and S. Balbi. 2014. The misconception of ecosystem disservices: How a catchy term may yield the wrong message for science and society. Ecosystem Services 10:52-53.

Villa, F., K.J. Bagstad, B. Voigt, G.W. Johnson, R. Portela, M. Honzak, and D. Batker. 2014. A methodology for adaptable and robust ecosystem services assessment. PLoS ONE 9(3):e91001.