



Strategus Demo

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Strategus Demo

- Strategus is a new vision for OHDSI network studies that aims to **simplify the R infrastructure requirements for network sites.**
- **Network studies will specify their study design in a JSON document** that fully encapsulates all the inputs and choices required for performing the analytics.



Strategus Demo

- Current state of OHDSI network studies
 - Create an **R package** for executing the study
 - Distribute this **R package** to network sites via <https://github.com/ohdsi-studies>
 - OHDSI Network sites download, configure and run the **R study package**
 - Results are reviewed and contributed back to the study coordinator



Strategus Demo

- Vision of OHDSI network studies using Strategus
 - Install & configure Strategus (1-time step)
 - Create a **JSON document** to specify the analytic study design choices
 - Distribute the **JSON document** to OHDSI network sites via <https://github.com/ohdsi-studies>
 - Network sites download the **JSON document** and execute the study via Strategus
 - Results are reviewed and contributed back to the study coordinator



Strategus Demo

- How it works
 - HADES packages are encapsulated as **modules** for use in Strategus.
 - Strategus uses the analysis specification JSON to install the specified modules and prepare the R environment for execution
- What is a module?
 - R project that is used to call 1 or more HADES packages to perform an analytic task based on the **JSON analytics specification**
 - Modules use **renv** to capture R package dependencies
 - Modules expose **settings functions** for generating the JSON analysis specification
 - Modules **enforce OHDSI best practices** for running a specific analytic step (i.e. computing diagnostics for CohortMethod)



Strategus Demo

- Demo
 - Question: What is the risk of gastrointestinal (GI) bleed in new users of celecoxib compared to new users of diclofenac?
- Objectives:
 - Design this study and run against the [Eunomia](#) data set.
 - Create the analytic specification:
 - Cohort Generation: generate the cohorts needed for this study
 - Cohort Diagnostics: empirically evaluate the cohorts used in the study
 - Cohort Incidence: compute the incidence of GI Bleed in new users of celecoxib & diclofenac
 - Cohort Method: perform a comparative cohort study to estimate the risk
 - Create the execution settings
 - Execute the study



Strategus Demo

- Demo resources
 - <https://github.com/OHDSI/Strategus>
 - BRANCH: develop
- Creating analysis specifications:
 - [CreatingAnalysisSpecification.Rmd](#)
- Creating the execution settings & executing the study:
 - [ExecuteStrategus.Rmd](#)



Strategus Demo

DEMO

