VISUAL AND INTERACTIVE
COHORT BUILDING

Target group: Medical doctors and pharmacologists

This software is directly applicable to your work if you are working in medical or pharmacological research and often ask yourself the following questions:

- Do we really take into account all relevant data?
- How could we further refine the cohorts for our studies?
- Are there unexpected relations in our cohorts?

Projects with Fraunhofer IGD

Fraunhofer IGD develops custom solutions for your data challenges. There are currently no standard solutions for the interactive visualization of large and complex data sets, let alone interactive cohort building. Close cooperation with our users ensures that our visualizations become effective tools.

Our Offer

If we have sparked your interest or if you have questions, please call us or write us an email. We are more than happy to demonstrate our technologies during a visit or an online meeting.

FRAUNHOFER IGD: THE INTERNATIONAL LEADING INSTITUTE FOR APPLIED RESEARCH IN VISUAL COMPUTING

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www.igd.fraunhofer.de/IVA

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Motivation: Accelerate the building of cohorts

The building and the analysis of patient cohorts is a basis for **personalized medicine**. They describe patient groups that **share relevant indications and attributes**. Diagnoses and therapies for such a cohort can then be based on precise and comparable cases from the past. They are equally relevant for the **design and setup of patient studies** in medical research.

Defining and building cohorts is a time-consuming process. Patient groups are constantly rearranged according to symptoms, treatments, and outcomes to create cohorts that are then subjected to rigorous statistical testing. Cohorts often have to be refined in several steps.

However, statistical tools like SPSS or SAS do not support the cohort building process. With the help of visual analysis tools, we significantly accelerate the creation of the right cohort, as well as the evaluation and refinement.

Overview of all patient data

Arrangement of patient groups with a few mouse-click

Automatic assessment of the cohort`s potential relevance

Guidance for further refinement of the cohort

Functionality: Visual and interactive data analysis

Fraunhofer IGD develops software for visual and interactive data analysis in close collaboration with its expert users.

With the help of our individually adaptable analysis tools, you can arrange and create patient groups and immediately receive visual feedback to determine if the cohort is promising or could be further refined.

Example: Prostate cancer

One of our technologies was developed specifically for building cohorts of patients with prostate cancer. This software supports a process that is primarily done manually at the moment. Within minutes instead of days, the doctors at our customer's clinic could build cohorts using existing patient data. The doctors could directly use these cohorts for reaching new scientific results, to design new clinical studies, or for a reassessment of specific symptoms shared by patients in particular cohorts.