Image and Data Analysis Facility (IDAF)

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Become an IDAF User

1. Contact IDAF.
2. Personal meeting with IDAF staff to discuss the project (biological question, type of microscopy/other kind of imaging) and to explain the booking/charging system.
3. Agree and sign the rules. For code development service or image analysis service.
4. The user and the IDAF employee in charge agree on the specifications of the project by filling and signing a user request form. For access to image analysis software.
5. Make an appointment for a personal
training session for the particular software.

**Group Members**

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Christoph Möhl, Head of Image and Data Analysis Facility</td>
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<tr>
<td>Manuel Schölling, Physicist and Data Analysis Specialist</td>
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**Equipment**

**Commercial Software:**
Due to licensing issues all commercial software is only available to employees of DZNE.

1. **Imaris:** 3D rendering and analysis of 3D fluorescence microscopy data
2. **Amira:** 3D rendering and analysis of MRI and fluorescence microscopy data
3. **Volocity:** Analysis of 3D fluorescence microscopy data
4. **Definiens Developer:** Segmentation and classification of 2D/3D/4D microscopy data
5. **Definiens Tissue Studio:** Segmentation and classification of 2D histological microscopy data
6. **Metamorph:** filtering and basic image analysis of microscopy data
7. **Genedata Screener:** Quality control and
data mining of high content screening projects

8. The Unscrambler: Visualization and mining of multivariate statistical data

9. Columbus: Segmentation and classification of 2D microscopy data

10. Huygens: Deconvolution of 3D fluorescence microscopy data

Prerequisites for commercial software usage:

- You have to be a registered IDAF user (fill out and sign IDAF terms of use and general terms of use)
- You attended an initial training for the software from IDAF personnel

Free software:
We give support for following open source packages

1. ImageJ (Fiji): Image file conversion, fast filtering, broad range of 2D and 3D image analysis

2. Cell Profiler: Segmentation and classification of 2D microscopy data, also available on the cluster for high performance computing.

Hardware:
IDAF Workstation: High performance workstation with pre-installed image analysis software.
Services

One advice beforehand:
Our doors are always open. Please contact us before acquiring the whole dataset. This allows you to optimize your imaging for the subsequent analysis.

The better your imaging settings fit to your analysis – the smaller your error bars!

Development of customized image analysis routines
We develop customized scripts for complex image analysis tasks on following platforms:

- Matlab
- ImageJ
- Imaris
- Definiens (only for DZNE scientists)

Please contact us to discuss your project and to define your specific needs.

Consulting
We provide consulting for image and data analysis.
We propose to book an IDAF assistant to discuss following questions:

- What quantitative imaging method should I apply to address my biological question?
- How do I optimize my imaging conditions for
the subsequent analysis?

- What kind of software can I use for that?
- How can I statistically analyze my data coming out of the image analysis?

**Analysis Service**

As the full-service package, we provide complete analysis from image raw data to statistical plots.

If you are interested in this service, please contact us before image acquisition to discuss optimal imaging conditions for the respective analysis.

**Terms of Use and Prices**

- General Terms of Use (English)
- General Terms of Use (German)
- Usage Rules
- For pricing information, please contact christoph.moehl(at)dzne.de

The Image and Data Analysis Facility (IDAF)
provides service and support for all issues related to image analysis, data processing and statistics:

- We provide image analysis software and teach you how to use it
- We consult you how to analyze your data
- We develop customized software plugins for you

Our interdisciplinary team has a broad scientific and technical background in microscopy, image analysis, statistics, modelling and computer science.

Software and Assistant booking (DZNE only)