| Project Name | Building Information Extractor |
|---|---|
| | |
| **Online team meeting** | https://tu-berlin.zoom.us/j/67365570181?pwd=RXpnY2xleEYvU3JpR3JzSDZFMk01dz09 |
| **Online Team Meeting (Backup)** | https://discord.gg/X4QMDpgtUR |
| | |
| **Production system (if any)** | http://prod.amos.b-ci.de/ |
| **Test system (if any)** | http://test.amos.b-ci.de/ |
| | |
| **GitHub repository** | GitHub - amosproj/amos2024ss04-building-information-enhancer |
| **GitHub feature board** | https://github.com/orgs/amosproj/projects/42 |
| **GitHub impediments backlog** | https://github.com/orgs/amosproj/projects/50 |
| | |
| **Team T-shirt (white)** | https://www.shirtinator.de/s/Qc61I_GoQwObnqsmHY2MpA |
| **Team T-shirt (black)** | https://www.shirtinator.de/s/AHGxY1zzT2m-AUhx2lc7Lw |
| **Team T-shirt (black) (women)** | https://www.shirtinator.de/s/sjwwt0GtTzGzfjSxn424ig |
| | |
| **Additional materials** | |
| Google Drive (notes, files, etc.) | https://drive.google.com/drive/folders/1DAyzaqwj5ID_YVzNBUgNE0JOCAuorzO_?usp=drive_link |
| | |
| **Team maling list** | oss-amos-proj4@lists.fau.de |
| | |
| **Quick links** | |
| Happiness Index Tool | Happiness Index Tool Link (Project specific) |
| Capabilities Timeline | Capabilities Timeline (by Week) |
| Capabilities Timeline Explained | Capabilities Timeline Explained |
| Main AMOS Document | AMOS #22 - Organisation [Public] |

| Last Name | First Name | GitHub User Name | Email Address |
|---|---|---|---|
| Balitzki | Emil | Corgam | emil.balitzki@gmail.com |
| Bandel | Nicolas | nicolasbandel | nicolas.bandel@fau.de |
| Fischer | Erik | battlemech | erik.fischer@campus.tu-berlin.de |
| Holtmeier | Leon | Superschnizel | l.holtmeier@campus.tu-berlin.de |
| Nandico | Lucas | Lucas-Nan | lucas.nandico@fau.de |
| Pfeil | Oliver | op-hub | oli.pfeil@fau.de |
| Pöhl | Celine | CelineMP | celine.poehl@fau.de |
| Yakovenko | Tetiana | dancingsushii | tetiana.yakovenko@campus.tu-berlin.de |
| Khan | Muhammad Ahsan | Ahsankkhan | ahsan.m.khan@fau.de |
|  |  |  |  |
| **Dropped Out** |  |  |  |
| Sivaci | Bartu | - | - |
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| # | Meeting Day | Product Owners | Software Developer | Release Manager | Scrum Master | Comment |
|---|---|---|---|---|---|---|
| 1 | 2024-04-17 | Pfeil, Oliver & Yakovenko, Tetiana | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 2 | 2024-04-24 | Pfeil, Oliver & Yakovenko, Tetiana | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 3 | 2024-05-01 | Pfeil, Oliver & Yakovenko, Tetiana | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 4 | 2024-05-08 | Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 5 | 2024-05-15 | Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 6 | 2024-05-22 | Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 7 | 2024-05-29 | Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | Mid-term due |
| 8 | 2024-06-05 | Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 9 | 2024-06-12 | Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 10 | 2024-06-19 | Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 11 | 2024-06-26 | Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 12 | 2024-07-03 | Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 13 | 2024-07-10 | Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | |
| 14 | 2024-07-17 | Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | Demo day! |
| 15 | 2024-07-24 | Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga] | Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine | Emil Balitzki | Erik Fischer | Retrospective |

Product owners, software developers, and Scrum Master are set and ideally don't change over time; the critical part is the Release Manager role you need to define here

| | |
|---|---|
| **Goals** | - Collect relevant experiences!<br>- Meet core requirements of the industry partner!<br>- Produce something viable und usable we can be proud of!<br>- Have fun! |
| **Meeting norms** | - Be on time.<br>- Notify early if it's not possible to join.<br>- Camera on and feedback will be given "loud" (no quiet "lecture").<br>- All questions are okay (there are no stupid questions).<br>- Communicate clearly, try to avoid ambiguities.<br>- Don't be rude.<br>- Weekly team meetings are mandatory for each team member. |
| **Working norms** | - Stick to your (your co-coder) task, do not interfere with others tasks.<br>- Tell as early as possible when encountering problems.<br>- No late night work expected, focus on consistency.<br>- Asking for help is fine.<br>- Code should be readable and clear.<br>- Code style should be uniform. |
| **Coordination norms** | - Roles in the Team Structure should be fixed and only change if really necessary (not randomly).<br>- All team meetings should follow agreed meeting structure and timing.<br>- Task Responsibilities should be assigned clearly for every week with feedback when it is done. |
| **Communication norms** | - Communication attempts should be answered within 2 days (eg. "Let's schedule a meeting on x").<br>- General, weekly comunication via Discord, Critical Communication via Phone (WhatsApp, SMS).<br>- First name basis is default.<br>- When ill, notify as early as possible, other team members should replace missing's person roles for a specific meeting. |
| **Consideration norms** | - General approach with problems is to talk directly, then in more general team meetings. If they are still not solvable, they will be escalated to the professor.<br>- Side-conversations are appropiate if they are not necessary for others. General information should be communicated via Discord and/or in the general team meetings.<br>- Disagreements which are not solvable by discussions will be decided by majority vote. |
| **Cont. improvement norms** | - Pull requests require review from another person. Keep the main branch clean.<br>- Tracking individual and team progress via boards and weekly sprints,<br>- Feedback should be considered necessary, relevant and as a way to improve for everyone - not as an insult. |
| **Rewards** | - Team party at the end of the project.<br>- Small celebrations during online meetings. |

| | |
|---|---|
| **Sanctions** | - No in-team sanctions, but persistent problems may be escalated to the professor if not solvable. |
| | |
| **Signatures** | |
| | |
| Scrum Master | Erik Fischer |
| Product owner | Tetiana Yakovenko |
| Product owner | Oliver Pfeil |
| Software developer | Lucas Nandico |
| Software developer | Emil Balitzki |
| Software developer | Muhammad Ahsan Khan |
| Software developer | Nicolas Bandel |
| Software developer | Celine Pöhl |
| Software developer | Leon Holtmeier |

| Product Vision | Project Mission |
|---|---|
| The BCI Building Information Enhancer is a platform for personal building owners or professionals to access information about a specific address (or region). This information can be used for a variety of applications, from sustainability certifications for buildings over calculating the solar power potential up to aiding in district planning. The BCI building information enhancer offers significant benefits for various stakeholders in the property market. | The team agreed to create an MVP for the BCI Building Information Enhancer, the core functionality will be displaying data from a fixed number of sources, including satellite images, charging stations and data needed for sustainability certification. Our goal is to build a practical tool that can grow with our users' needs. |

| Term | Definition |
| --- | --- |
| Data Lake | A centralized repository/database that allows you to store and query all of your structured and unstructured data at any scale. Therefore, the data lake supports a common interface for accessing the heterogenous data. |
| COPERNICUS | Earth Observation component of the European Union's space programme, looking at our planet and its environment for the benefit of Europe's citizens. |
| ESPON | An EU funded programme that delivers quality expertise to public authorities responsible for designing territorial policies. |
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| Sprint # | Sprint goal |
|---|---|
| 1 | Getting familiar with the requirements |
| 2 | Setting up the infrastructure and first steps |
| 3 | Agreed upon backend infrastructure and ingest one dataset for one UI view |
| 4 | Finalising the PoC defined in the previous sprint |
| 5 | Getting closer to specific cases: ecological calculator and solar potential of a building |
| 6 | Fixing bugs and polishing before mid-project release |
| 7 | |
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| Last Name | First Name | Value | | | | | |
|---|---|---|---|---|---|---|---|
| Balitzki | Emil | 3 | | **3.00** | **OK** | | |
| Bandel | Nicolas | | | | | | |
| Fischer | Erik | | | | | | |
| Holtmeier | Leon | | | | | | |
| Nandico | Lucas | 3 | | 0 | No size | | |
| Pfeil | Oliver | | | 1 | Trivial size | | |
| Pöhl | Celine | | | 2 | Small size | | |
| Khan | Muhammad Ahsan | | | 3 | Medium size | | |
| Yakovenko | Tetiana | | | 5 | Large size | | |
| | | | | 8 | Very large size | | |
| | | | | 13 | Too large (size) | | |

| Sprint | Goal | Feature Name | Est. Size | Est. Remaining | Real Size | Real Remaining |
|---|---|---|---|---|---|---|
| | | | | | | |
| **Release** | | | | | | |
| | | | | | | |
| **Total** | | | 172 | 172 | 157 | 157 |
| | | | | | | |
| **Sprints** | | | | | | |
| | | | | | | |
| 1 | Getting familiar with the requirements | | 0 | 172 | 0 | 172 |
| 2 | Setting up the infrastructure and first steps | | 46 | 172 | 43 | 172 |
| 3 | Agree upon backend infrastructure and ingest one dataset for one UI view | | 58 | 126 | 47 | 129 |
| 4 | Finalising the PoC defined in the previous sprint | | 31 | 68 | 32 | 82 |
| 5 | Getting closer to specific cases: ecological calculator and solar potential of a building | | 37 | 37 | 35 | 50 |
| 6 | Fixing bugs and polishing before mid-project release | | 0 | 0 | 0 | 15 |
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| **Features** | | | | | | |
| | | | | | | |
| **1** | **Getting familiar with the requirements** | No features/commits | 0 | | 0 | |
| **2** | **Setting up the infrastructure and first steps** | Request Deutsche Bahn dataset | 1 | | 1 | |
| | | Ingest Data [1] | 3 | | 2 | |
| | | Ingest Data [2] | 3 | | 3 | |
| | | Ingest data [3] | 3 | | 3 | |
| | | Documentation - BE technology | 1 | | 1 | |
| | | Research on how should data pipeline work | 1 | | 1 | |
| | | Create FE Concept | 3 | | 5 | |
| | | Documentation - CI/CD technology | 1 | | 1 | |
| | | Get Backend container running | 2 | | 2 | |
| | | Get FE container running | 2 | | 2 | |
| | | Initialize Github Wiki | 1 | | 1 | |
| | | Setup deployment pipeline/branches | 3 | | 3 | |
| | | Research on FE RestAPI requirements | 3 | | 2 | |
| | | Documentation - FE technology | 1 | | 1 | |
| | | Research Github Actions constraints | 2 | | 2 | |
| | | Setup basic React + NodeJS frontend | 2 | | 1 | |
| | | Automate workflow with github action | 3 | | 3 | |
| | | Technology Research (Map APIs) | 3 | | 3 | |

| Sprint | Goal | Feature Name | Est. Size | Est. Remaining | Real Size | Real Remaining |
|---|---|---|---|---|---|---|
| | | API project docker file | 3 | | 3 | |
| | | Create boilerplate API project | 5 | | 3 | |
| 3 | Agree upon backend infrastructure and ingest one dataset for one UI view | Create multimap view component | 3 | | 3 | |
| | | Create basic layout for main UI interface | 2 | | 1 | |
| | | Create basic data view component | 3 | | 3 | |
| | | Tag sprint candidate | 2 | | 2 | |
| | | Simplify .env file | 1 | | 0 | |
| | | Create video recording and documentation about build process | 2 | | 1 | |
| | | Automate workflow with GitHub Actions | 3 | | 3 | |
| | | Design Data Pipeline CLI Application | 3 | | 3 | |
| | | Develop YAML Parser | 5 | | 2 | |
| | | Develop CSV parser | 5 | | 5 | |
| | | Dockefile for data pipeline | 3 | | 3 | |
| | | Configure database connection | 3 | | 3 | |
| | | Dockerfile for database | 3 | | 5 | |
| | | Create generic pop-up container | 1 | | 1 | |
| | | Technology Research (Map APIs) | 3 | | 1 | |
| | | Create pop-up with favourites | 2 | | 2 | |
| | | Create map component from OSM | 3 | | 3 | |
| | | Create 3d view component | 5 | | | |
| | | Row mapping/filtering | 3 | | 3 | |
| | | Design Data Pipeline CLI Application | 3 | | 3 | |
| 4 | Finalising the PoC defined in the previous sprint | Row mapping/filtering | 3 | | 3 | |
| | | Create 3d view component | 5 | | | |
| | | Implement search by coordinate | 3 | | 3 | |
| | | FE filtering changes data entries | 1 | | 1 | |
| | | Compose and finish the UI of the FE | 3 | | 5 | |
| | | Fix pinning of the tabs going crazy after deleting some tabs | 1 | | 1 | |
| | | Decide on API endpoints - to have one hour meeting | 5 | | 5 | |
| | | Add discard_if_empty attribute to yaml. | 2 | | 2 | |
| | | Crash on special character | 1 | | 1 | |
| | | Allow building of BE projects with command line | 2 | | 3 | |
| | | Create endpoint to request datapoints for am area | 5 | | 8 | |
| 5 | Getting closer to specific cases: ecological calculator and solar potential of a building | Research and protoypr on Geospatial Database | 5 | | 5 | |
| | | Implement shapefile data importer for database integration | 5 | | 5 | |
| | | Implementation of a unified search interface | 2 | | 3 | |

| Sprint | Goal | Feature Name | Est. Size | Est. Remaining | Real Size | Real Remaining |
|---|---|---|---|---|---|---|
| | | Irrelevant search results for query "1" in DataView | 2 | | 1 | |
| | | Make padding displaying correctly | 1 | | 1 | |
| | | Reset input fields when switching search modes | 1 | | 1 | |
| | | Persistent input in search popup | 1 | | 1 | |
| | | Enhance search suggestion relevancy | 2 | | 1 | |
| | | Rework the datasets tab, add metadata for datasets and main menu | 2 | | 2 | |
| | | Fix connection between FE and BE | 5 | | 5 | |
| | | Create build proces video and upload to Deliverables folder | 2 | | 2 | |
| | | Add support for satellite image in map | 2 | | 2 | |
| | | Allow default values in data description yaml | 2 | | 1 | |
| | | Data pipelin crashes while used in docker container | 5 | | 5 | |
| **6** | **Fixing bugs and polishing before mid-project release** | | | | | |

Burn-Down Chart

| Sprint | Goal | Feature Name | Est. Size | Est. Remaining | Real Size | Real Remaining |
|---|---|---|---|---|---|---|
| | | | | | | |
| **Release** | | | | | | |
| | | | | | | |
| **Total** | | | 0 | 0 | | |
| | | | | | | |
| **Sprints** | | | | | | |
| | | | | | | |
| 1 | | | 0 | 0 | 0 | 0 |
| 2 | | | 0 | 0 | 0 | 0 |
| 3 | | | 0 | 0 | 0 | 0 |
| ... | | | | 0 | | 0 |
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| **Features** | | | | | | |
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| **2** | | | | | | |
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| **3** | | | | | | |
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| # | Feature Definition of Done | Sprint Release Definition of Done | Project Release Definition of Done |
|---|---|---|---|
| | Component tests have been written and pass | Project builds, deploys, and tests successfully | User interaction tests pass on all major browsers |
| | All CI tests passed for the pull request | Database update scripts succeed, consistency tests pass | Component test coverage is above 70% |
| | Code review has been completed and code has been merged into sprint-release branch | Sprint release notes have been written | Design documentation has been updated |
| | All feature branches have been merged and closed | Change log has been updated | User documentation has been updated |
| | New feature code has been documented | The value of the product has been improved | |
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| Type | Link / reference | Description |
| --- | --- | --- |
| GitHub Wiki | https://github.com/amosproj/amos2024ss04-building-information-enhancer/wiki | System Architecture, Meeting Notes, Software decisions |
| README .md | https://github.com/amosproj/amos2024ss04-building-information-enhancer/blob/main/README.md | Main redme of the repository, setup and deployment explanation |
| Google Drive | https://drive.google.com/drive/folders/1DAyzaqwj5ID_YVzNBUgNE0JOCAuorzO_?usp=drive_link | Shared team files associated with the project |
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| # | Context | Name | Version | License | Comment |
|---|---|---|---|---|---|
| 1 | CI/CD | Docker - build scripts | 26.0.0 | MIT | Docker framework and tools used to build and publish container images |
| 3 | CI/CD | Node.js | >= 20.12.2 | MIT | Free, open-source, cross-platform JavaScript runtime environment, here used for the npm tool. |
| 2 | Frontend | npm:typescript | 5.4.5 | Apache-2.0 | TypeScript is a superset of JavaScript that compiles to clean JavaScript output. |
| 3 | Frontend | npm:react | 18.3.0 | MIT | The library for web and native user interfaces. |
| 4 | Frontend | npm:eslint | 8.57.0 | MIT | Find and fix problems in your JavaScript code. |
| 5 | Frontend | npm:react-dom | 18.3.0 | MIT | The library for web and native user interfaces. |
| 7 | Frontend | npm:vite | 5.2.10 | MIT | Frontend tooling for easier frontend developement |
| 8 | Frontend | npm:acorn | 8.11.3 | MIT | JavaScript-based JavaScript parser |
| 9 | Backend | dotnet-docker | 6.0 | MIT | .NET is a general purpose development platform maintained by Microsoft and the .NET community on GitHub. This also includes all dotnet docker containers used for the Backend. |
| 10 | Backend | nuget:MySql.Data | 8.0.23 | - | Connector/NET is a fully-managed ADO.NET driver for MySQL. |
| 11 | Backend | nuget:Swashbuckle.AspNetCore | 5.6.3 | MIT | Swagger tools for documenting API's built on ASP. NET Core |
| 12 | Data processing | nuget:Microsoft.Data.SqlClient | 3.0.1 | MIT | Microsoft.Data.SqlClient provides database connectivity to SQL Server for .NET applications. |
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| **Software bill of materials(generated from Github):** | | https://drive.google.com/file/d/1CPA89OGH_Cr0poRdWhUKLSSHlUuKb8Fm/view?usp=sharing | | | |
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