

A12

RELEASE 2023.02
MARCH 2023

Basic information about A12
<https://www.mgm-tp.com/a12.html>

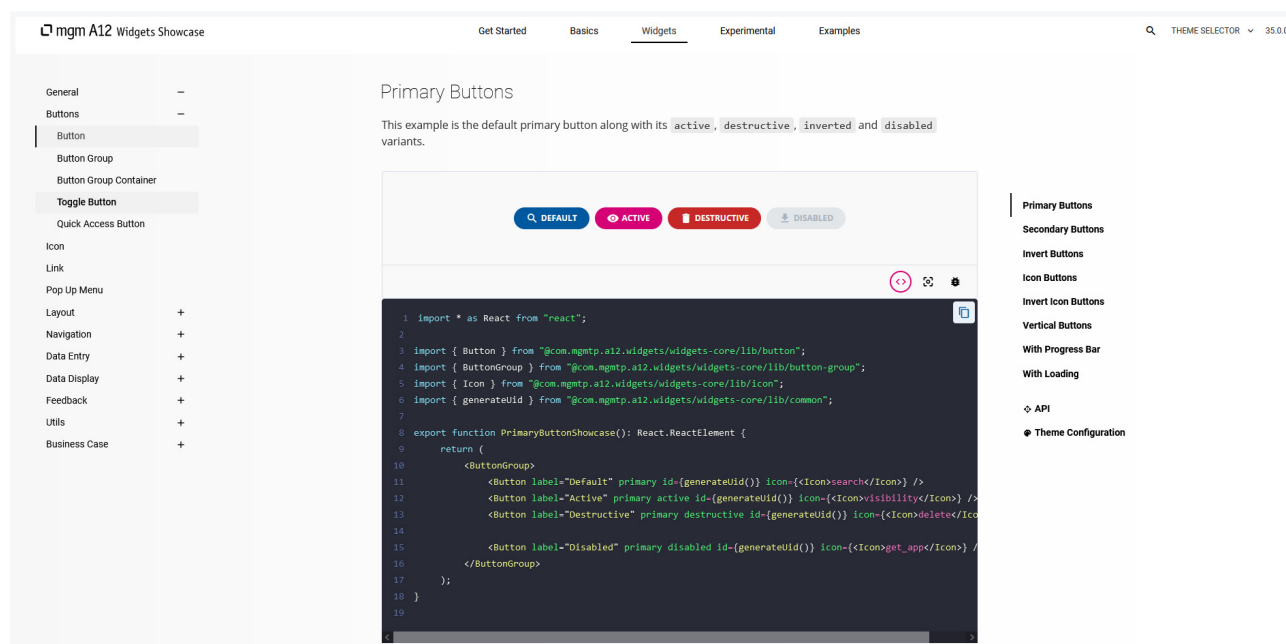
What is A12?

A12 is an enterprise low code platform for developing enterprise applications in complex IT landscapes. A12's modeling platform provides tools to quickly create and maintain parts of an application over the long term without programming experience.

A12's runtime platform provides the flexibility needed to evolve low code apps with professional individual software development and system integration into fully integrated enterprise applications.

WIDGETS SHOWCASE

Widget Showcase: New Design and Improved Documentation



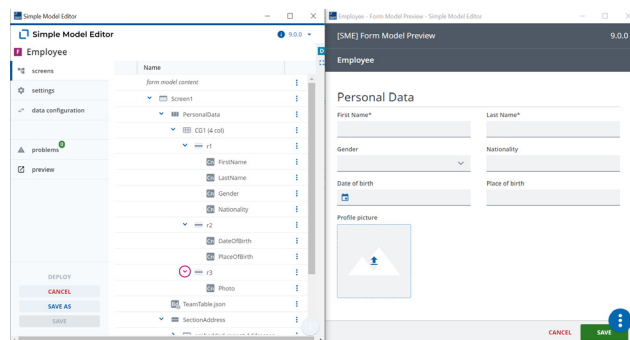
The A12 Widget Library offers an extensive set of UI components for realizing business applications with the Plasma design system. Those who want to learn more about the available widgets will now find an even better overview in the newly designed A12 Widgets Showcase. The documentation of the individual widgets has been substantially updated. It

now contains integrated API documentation for each widget and an overview of the theme's configuration options. An improved search leads users even faster to the information relevant to them. All examples now contain a new „Report bug“ button that offers a direct feedback option to the widgets team.

SME FMM

Modeling Forms: SME Replaces UI Designer

The UI Designer - the previous A12 tool for modeling forms - is being retired. Its functionalities are taken over by the Simple Model Editor (SME). With the new Form Modeling Module (FMM), online forms can now be modeled comfortably in the SME - and examined via live preview. This renewal is an important milestone in the tool evolution of A12. The older tool generation based on Eclipse RCP has now been completely replaced by the SME. After the SME has already supported the modeling of Document Models since 2022, the modeling tool is now also the standard for the modeling of forms. The SME thus bundles all modeling functionalities of A12 in a modern, modular architecture. Business analysts no longer have to switch between different tools to edit the crucial A12 models.

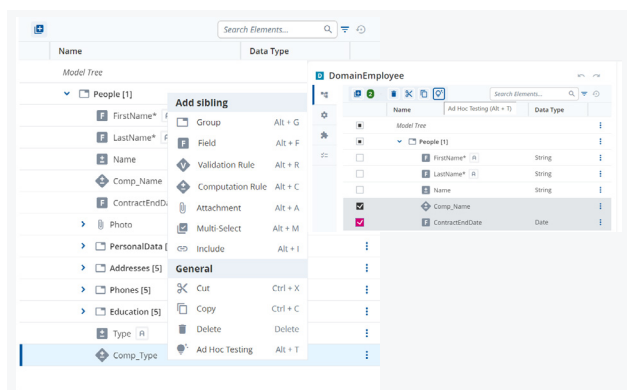


They also benefit from more seamless modeling of relationship bindings, which is directly integrated into the Form Model.

SME AD HOC TESTING

SME Integrates Ad Hoc Testing for Document Models

A12 Document Models represent the domain knowledge of an A12 application. They contain validation rules, which can extend over several input fields of a form, as well as computation rules, which can combine contents from different fields. With the new Ad Hoc Testing functionality of the SME, users can now conveniently test validations and computations in isolation - both for individual fields and rules, as well as for more extensive model sections. To do this, they can either start the Ad Hoc Testing via the context menu of an element of the Model Tree or they can use the feature as part of the bulk operation functionality. A preview opens that contains only the selected elements as well as fields affected by selected rules. Here, the Modeler can enter test data to check whether the rule is effective and whether error messages are issued if the test input is invalid. When testing extensive sec-



tions of a Document Model, the test input can also be saved and loaded again later. This saves business analysts the time of repeated entries.

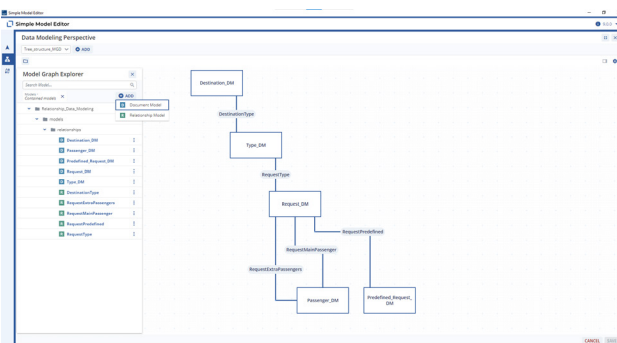
MORE NEWS IN A NUTSHELL

- The **A12 Release Line 2023.02** is supported until the **end of 2023**. The next Long Term Release will be released in June.
- In addition to JPG, PNG, GIF, BMP and WBMP, A12 now supports the **WebP format** with automatically generated **thumbnails** for **attachments**.
- **UAA** provides a new module for the **authorization of background processes**.
- **Data Services** introduces the **Facet API**, a new way to easily aggregate values in table columns. For number-based fields, the **sum**, **minimum**, **maximum** as well as the **average** can be calculated.

SME MODEL GRAPH DIAGRAM

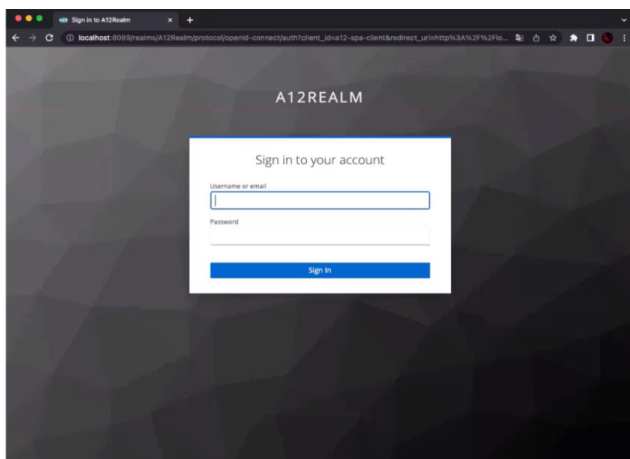
Extended Possibilities of Visual Modeling

With the help of Model Graph Diagrams, users of the Simple Model Editor (SME) are able to visualize the structure of modeled domain-specific contents of A12 applications in a flexible way - and to edit them directly. Multiple diagrams can be created to create different views of your business domain. These new perspectives on data modeling make it easier for business analysts to coordinate individual modeling steps with partners and to communicate what the individual models should represent. In addition, the possibilities of the Model Diagram Editor for direct editing of models are being continuously extended. Previously, it was only possible to visually add new Relationship Models as edges between existing Document Models. Now modelers can also create new Document Models directly in the Model Diagram Editor.

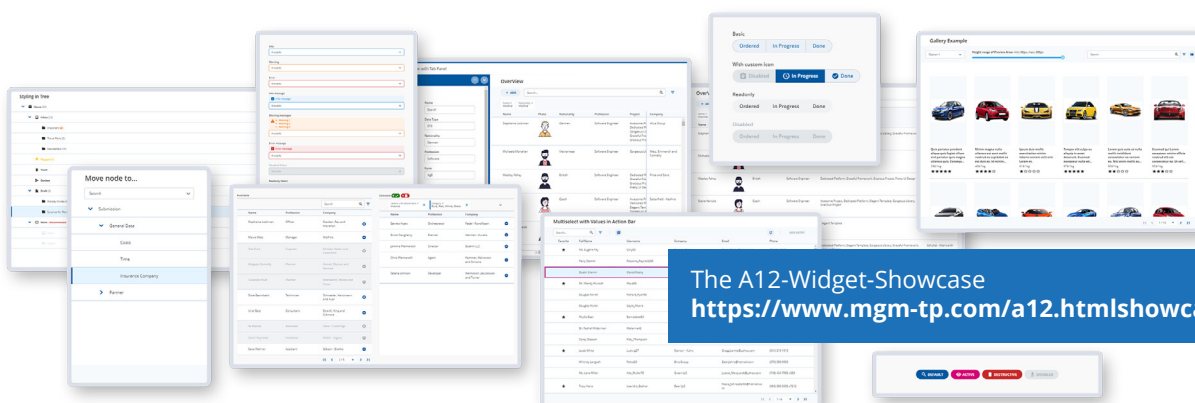


FULLSTACK PROJECT TEMPLATE KEYCLOAK

A12 Fullstack Project Template as a Basis for Production-Ready Software



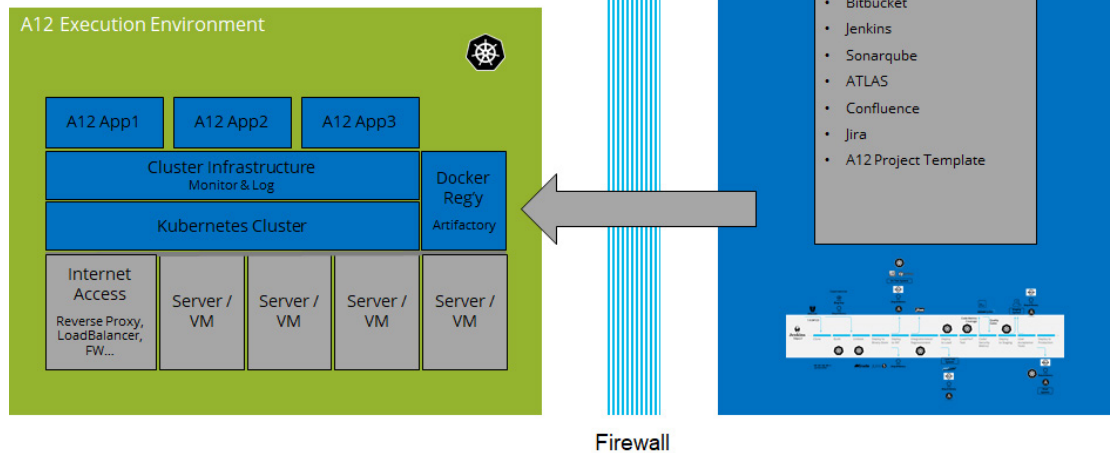
Since mid-2021, the Fullstack Project Template has provided development teams with a basis for setting up A12 projects quickly and conveniently. Since then, the template has evolved with each release and is now pursuing a more ambitious mission statement: the template forms the basis for bringing A12 applications into production. It contains, among other things, standardized build pipelines as well as development and test environments and covers basic security requirements. As a core, the template now includes the A12 components Data Services, Client and UAA. Keycloak is set as the default identity provider, the authentication type is OpenIDConnect/Oauth2. Guides are being prepared for the standardized integration of optional components such as Workflows, the Notification Center and the Print Engine.



The A12-Widget-Showcase
<https://www.mgm-tp.com/a12.htmlshowcase/#/>

TAGS: A12 PROJECT SETUP

One Day Mission: How to Set-up an A12 Project in No Time



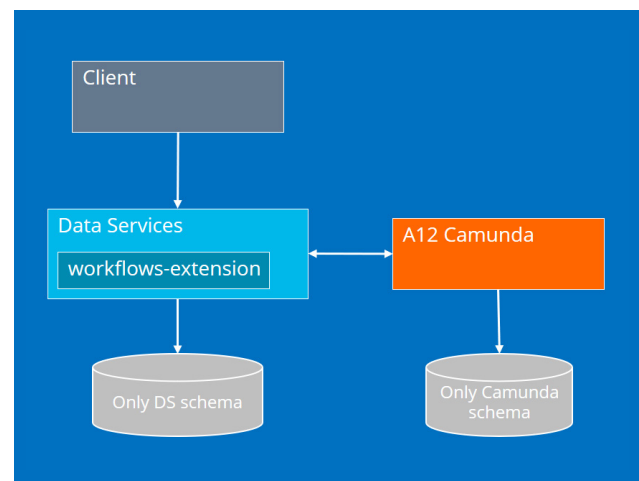
Setting up development and test environments as well as well thought-out build and deployment pipelines is a time-consuming process in enterprise software development that can usually take up to two months. For projects based on the A12 standard, mgm has developed a process that lays these important foundations within one day. With the help of the Full-stack Project Template, the team gets a scaffold application and the associated models out-of-the-box. In addition, there are ready-made build and deployment scripts (Gradle and

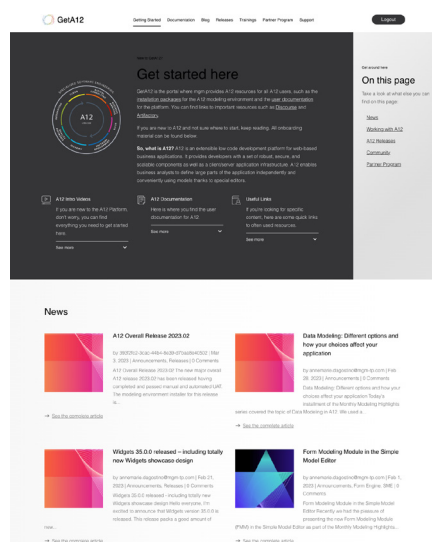
Helm charts), pre-configured build environments and deployment pipelines (Jenkins, Git, Kubernetes) as well as deployment environments (DEV, TEST and PROD Cluster). In short: The defined standards enable the rapid setup of a proven and complete development, build and deployment infrastructure. Projects that do not rely exactly on the A12 standard also benefit by being able to use the standardized setup as a basis for more individual project structures.

WORKFLOWS ARCHITECTURE

New Workflows Architecture Simplifies Maintenance and Further Development

A12 gets a new, significantly streamlined workflows architecture. It simplifies the usage of workflows and the associated maintenance efforts for project teams. At the same time, it provides the A12 Workflows team with a better foundation on which to maintain and further develop workflow functionality. The most important new feature of the architecture is a clear separation of Camunda and the Data Services component. Unlike the previous architecture, Camunda no longer duplicates A12 Documents. The process execution there uses references only. The database schemas are thus clearly separated from each other. The previously independent Workflows service is rendered obsolete by the new architecture design. It is replaced by a workflows extension for Data Services. The original architecture is still functional, but will be replaced by the new one in the future. Projects can gradually migrate first to A12 Release 2023.02 and then to the new workflows architecture.





GETA12

Redesign of the GetA12.Com Platform: User-Friendly and Modern

One year after its launch, the GetA12 portal now shines in a fresh and modern layout after a comprehensive redesign by the A12 Plasma team. The new user-friendly navigation provides a more intuitive way to find all important resources on the platform. In addition to an integrated blog on A12 topics, all important information on the partner program has been bundled together.

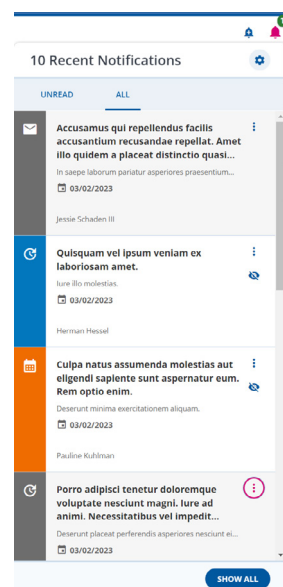
COMPONENTS

NOTIFICATIONS

COLLABORATION

Notification Center Available for All A12 Projects

First introduced in October for release lines 2022.06 the Notification Center component is now available to all interested A12 projects. The modern, intuitive user interface of the Notification Center offers several types of notifications based on various business use-cases, structured views, various filters and user preferences, which allow users to optimally and flexibly adapt to their own work priorities.

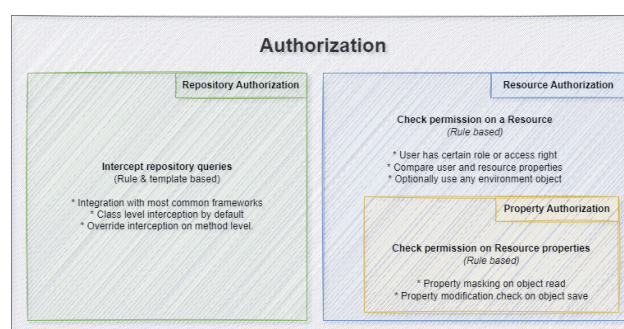


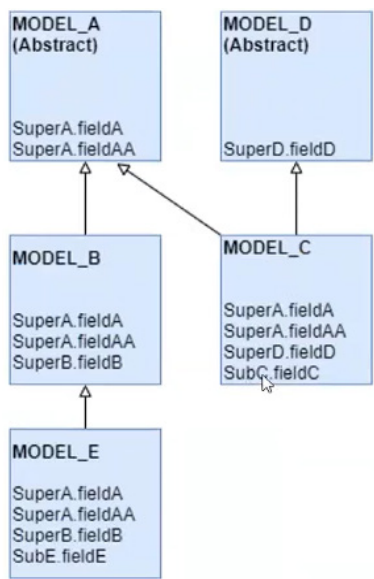
Backend Updates

UAA

UAA Introduces New Authorization Concept

The A12 component for *User Management, Authentication and Authorization* (UAA) introduces a new concept to make the verification of access rights more flexible. At the heart of the change are the newly introduced *Resource Authorization* and *Property Authorization*. The former describes access to A12 documents or Java objects, the latter access to specific fields of an A12 document or properties of a Java object. Based on this distinction, specific read and write permissions can be defined down to the field level. UAA already provides APIs for *Property Authorization*. The feature is currently in an experimental stage. For the coming releases, it is planned to adapt it in related A12 products and make it available as an end-to-end feature of the platform.





SUPERTYPES HETEROGENEITY

More Flexible Linking of Models With SuperTypes

Annotations can be used in A12 to define the hierarchies between different document models. This is an important prerequisite for advanced modeling techniques such as the representation of data of different types in heterogeneous lists. Until now, A12 offered the SubType annotation for this purpose. It allows a top-down description of the model hierarchy. Thanks to an extension of the Data Services component, A12 now also supports a SuperType annotation for a bottom-up description of the hierarchy. This allows modeling teams to benefit from greater flexibility in defining model hierarchies. What is also new is the possibility for a model to refer to several parent models. In order to do this, however, conflicts must be avoided. For example, two parent models may not have fields with the same name but different types.

Frontend Updates

OVERVIEW ENGINE TREE ENGINE

Overview & Tree Engine: Multi-Selection With Shift-Click

The screenshot shows the 'List of all products (30)' interface. It features a table with columns for Date, Expression, Base Time, Time, Name, and Number (parsed). The table contains 10 rows of product data. The interface includes a search bar, a 'FIRST RIGHT HEADER BUTTON', and a 'SECOND HEADER BUTTON'. The table is displayed in a compact view, showing only the file name for each product.

[0] Date	[1] Expression	[2] Base Time	[3] Time	[4] Name	[5] Number (parsed)
03/07/2018	girl positive	03/07/2018 08:20 PM	09:15 PM	Black K79	264
03/07/2018	girl no	03/07/2018 08:20 PM	09:15 PM	Tennisschall für Park	3.881
03/07/2018	child no	03/07/2018 08:20 PM	09:15 PM	Tennisschall für Park	141
01/07/2018	girl no	01/07/2018 06:20 AM	09:15 PM	Taschenlampe	153
03/07/2018	no	03/07/2018 08:20 PM	06:20 AM	Tutor Made Cap	3.893
03/07/2018	no	03/07/2018 08:20 PM	09:15 PM	TATONKA Trekking Rucksack "LUNA M" L35+40 L	37
03/07/2018	girl positive	03/07/2018 08:20 PM	09:15 PM	Surfbrett long bling	215
03/07/2018	child no	03/07/2018 08:20 PM	09:15 PM	Spinnique Tees SHIRLEY	3.891
03/07/2018	no	03/07/2018 08:20 PM	09:15 PM	Spinn-BH	272
03/07/2018	no	03/07/2018 08:20 PM	06:20 AM	Snowboardstich F200	139

Until now, if you wanted to select several rows in a table or several elements on the same level in a tree-like view, you had to click on them one by one. An improvement of the A12 Overview and Tree Engine now simplifies such a multi-selection. With shift-click, users can select numerous rows or nodes at once.

ATTACHMENTS FORMS

New Compact View for Attachments

When users uploaded files in an A12 form, they were previously always displayed as a thumbnail or icon. Optionally, modelers can now also select a compact view that only displays the file name. Another new feature is the option to trig-

ger the download of the file directly as a standard action when clicking on the attachment. This saves users one click, as they do not have to call up the context menu first.

REPEATS FORMS SME

Extended Modeling of Repeatable Form Areas

Phone

Phone number	Description
12345678	Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet citta kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

CANCEL SAVE

Phd

Phd	Description
1	Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet citta kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

CANCEL SAVE

Repeat

Button Labels

Table Style

☐ Infinite scrolling

Page size

Row height

35

Action column width

Card Height

In business applications, there are many cases where an indefinite number of specific objects needs to be included in forms - for example, an indefinite set of telephone numbers for a contact. A12 offers repeatable areas, so-called repeats, for this purpose. They are specific tables that can be extended by users during runtime. Until now, the specification of a fixed row height and column width of these repeats was only possible for the special case of "infinite scrolling". Now these

specifications can be modeled for all types of repeats in the Simple Model Editor (SME). This ensures a more compact representation even for long texts in individual cells. In addition, modelers can now hide row actions of a repeat. Without this option, there may be two options for triggering an action - clicking on the row as the default action and clicking on the respective row action. However, only one way is recommended for accessible applications.

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mgm technology partners GmbH

Taunusstr. 23
80807 Munich
Tel: +49 (0)89 / 358 680-0

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