CAD PROGRAMMING
TAILOR-MADE AND FUTURE-PROOF

IntegaDesign®

Individual software solutions and automation for Autodesk® Plant 3DTM and other CAD systems

Standard functions are often insufficient when processes need to be more efficient, repeatable, and cross-system. IntegaDesign GmbH develops customized CAD applications and extensions that make your CAD environment more powerful and adaptable – with a focus on automation, data consistency, and user-friendliness.

In short: customized tools for greater planning efficiency.

While the component catalogs in Plant 3D™ are programmed entirely in Python, we utilize the strengths of C# for all other programming tasks.

This combination enables us to develop powerful and robust extensions that significantly accelerate and optimize your planning processes in Plant 3D™. Our goal: You don't get just any tool—you get the exact solution that accelerates your planning process and simplifies your daily tasks.

Our services in the field of CAD programming

✅ PYTHON-BASED COMPONENT CATALOGS

Our component catalogs for Plant3D™ are distinguished by their smart, 100% Python-based programming. They offer you not only outstanding performance but also intelligent functions, parameterization, and the highest precision, making your planning process more efficient.

✅ DEVELOPING CUSTOM PLUGINS AND AUTOMATIONS WITH C#

For all other programming requirements in Plant 3D™, we rely on C#.
Whether it's custom commands, automation, or user-defined functions – our C# programming allows you to simplify complex processes in Plant3D™ and automate repetitive tasks.

Individual dialogs, tool palettes and commands

.NET-based add-ons for Plant 3D™

Extension of existing functions or development of independent modules

Parameterization and control of component behavior or symbols

✅ FLEXIBILITY AND ADAPTABILITY FOR PLANT 3D™

Our solutions offer you maximum flexibility and adapt perfectly to your workflow and project requirements. From specific commands to tailor-made extensions, we ensure you can realize the full potential of Plant 3D™.

Data management system for isometric delivery packages including revision and reporting

Automatic addition of additional components to the isometric parts list that have not been planned as components.

and many more

✅ INTERFACES AND DATA INTEGRATION

We connect your CAD world with adjacent systems – for consistent, end-to-end data flows and future-proof investments:

Connection to ERP/PDM/DMS systems

Export and import interfaces (e.g. Excel, XML, databases)

Automated data comparisons and validations

Transfer of metadata to other engineering systems

✅ CUSTOMIZATION OF REPORTS, TAGS AND WORKFLOWS

Do you need specific analyses, a special tag logic, or want to automate your reporting structure? We deliver:

Configuration and programming of report templates

Advanced tag formats and classification systems

Logic-based P&ID symbols or links

Automatic document labeling, sorting, versioning

✅ MORE THAN JUST PLANT 3D™

In addition to Plant 3D™, we also program for other CAD applications such as Autodesk Inventor. Upon request, we offer customized solutions for your specific needs – regardless of which CAD software you use.
Examples from our customer projects:

Drawing creation tool for Inventor with Ilogic/VBA/C#

Design Checking Tools

Interface to Access for better material management

Example for Autodesk® Revit®:

We have developed our own tool that enables the direct import of Plant 3D™ pipe specifications into Revit®. This allows project-specific pipe specifications, along with all associated metadata, to be conveniently loaded into Revit® and easily linked to component families.
This automated process simplifies model integration between the systems. It ensures consistent data and reduces manual transfer errors. This accelerates workflows and lays the foundation for verifiable BIM processes.

Why IntegraDesign GmbH as a development partner?

· Over 14 years of experience in Plant 3D™ – as users, admins and developers
· In-house development SuCri® as proof of innovation and engineering depth
· Development of Python-based content packs & configuration tools
· Agile implementation, technical documentation and maintenance from a single

Do you need a customized Plant 3D™ solution or an advanced CAD tool for your project?
Contact us for a free consultation – we think in terms of functions, write clean code, and deliver productive solutions.