



**POLYNOM** is a BIM tool for understanding the complexity of processing facilities. Our software creates and updates the information in models at all stages of project life cycles: designing, constructing, operating, and reconstructing plants in 3D.

The 3D plant information model can be employed at every stage of project development and management:

- **While designing plants.** POLYNOM gathers 3D models (including those derived from 2D documentation), detects and eliminates collisions, and employs 4D-6D technologies during later stages of the project.
- **While building plants.** POLYNOM promptly updates models based on changes made in the field during the construction phase.
- **While operating plants.** POLYNOM uses the information stored in its EDMS (engineering data management system) to help you operate your plants, and to effectively reconstruct and modernize them.

## POLYNOM is Affordable BIM for Process Facilities

POLYNOM is an affordable investment in BIM for every design, build, and operations firm, thanks to its adaptability to changing market conditions, business environments, and management goals. It has the capability to scale up as businesses increase the number of orders, customers, and projects.

### POLYNOM works efficiently with large facilities

Our unique 3D kernel makes it possible for POLYNOM to service facilities as large as required, including plants as complex as a million or more elements.

### POLYNOM fits in with any type of customer, general contractor/subcontractor, and project

POLYNOM seamlessly integrates with NEOLANT's **InterBridge** translation software to provide you with cross-platform 2D/3D CAD, BIM, and PLM data conversion and model viewing. Our integrated software provides you the following capabilities:

- Import models from many different kinds of CAD/BIM systems into POLYNOM.
- Consolidate all parts designed in different CAD/BIM systems into a single model that includes graphical and data structures.
- Locate rapidly and eliminate spatial collisions to control the quality of design and construction.

### Operates with a broad variety of hardware

Thanks to our specially developed method of online visualization, you can manipulate and edit large 3D models in POLYNOM, eliminating the need for powerful and expensive computers.

### Design as a team

The data-centric model of engineering data management makes it possible for you to involve non-engineering staff, and to operate POLYNOM at remote sites, even over low-speed communications channels.

### Software that's friendly to budgets at small design offices and the largest design firms

You'll find that the total cost of ownership of POLYNOM – purchase, training, implementation, and technical support – is many times lower than the TCO of any other top-tier 3D CAD/BIM systems with comparable capabilities.

### Flexible customization

You can customize POLYNOM to match your firm's needs, with no need for software programmers; the library creation tool lets you supplement third-party libraries with parts you create on your own.

## POLYNOM is a Mature Application

POLYNOM has ten years of experience in this field, and boasts a significant list of reference customers:

- Microelectronic Manufacturing for Military and Industry: Angstrom-T manufacturing sub-micron semiconductor elements
- Nuclear Weapon Complexes: ROSATOM: JSC FCS&HT "SNPO "Eleron", FSUE PA Mayak
- Nuclear Industry: ROSATOM: Rosenergoatom Concern JSC: Balakovo NPP, Beloyarsk NPP; NPP Kozloduy (Bulgaria)
- Hydropower Industry: RusHydro
- Oil and Gas Extraction: Gazprom Neft PJSC, NGK Slavneft JSC
- Oil Refineries: Rosneft PJSC: Bashneft-Novoil JSC

## Functions and Abilities

POLYNOM supports design documentation in the following disciplines:

- Architectural and construction concepts
- Electric power supply
- Heating, ventilation, and air conditioning
- Production technology
- Steel structures
- Water supply and sewage

POLYNOM provides the following tools and functions for designing processing facilities:

- Architecture and construction elements
- Electric trays and cables
- Generation of drawings and specifications
- Inputting laser scanning point clouds
- Process equipment and pipelines
- Supports and suspensions
- Ventilation and heating
- 3D symbols designer

POLYNOM exports pipeline data in PCF ISOGEN format to support the design and strength analysis of pipelines in a variety of applications.

## How NEOLANT is Supplied

- NEOLANT supplies a software package that includes the server and client ends with network licenses. The server stores projects, parts catalogs, the administration module, and the licensing service
- We include a set of over 50,000 3D symbols free
- To learn the system, we provide user manuals and administrator's guide, as well as training videos

## Inputting Data from Other BIM Systems

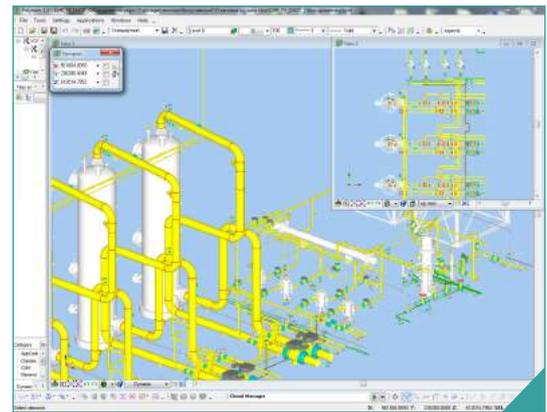
Through its integration with InterBridge, POLYNOM imports models from the most common 3D CAD and BIM formats, such as \*.dgn, \*.dwg, \*.vue, \*.rvm, \*.rvs, \*.dri, \*.dxf, \*.pid, and \*.rvt.

## Generating Documentation, Data, and a Universal BIM Viewer

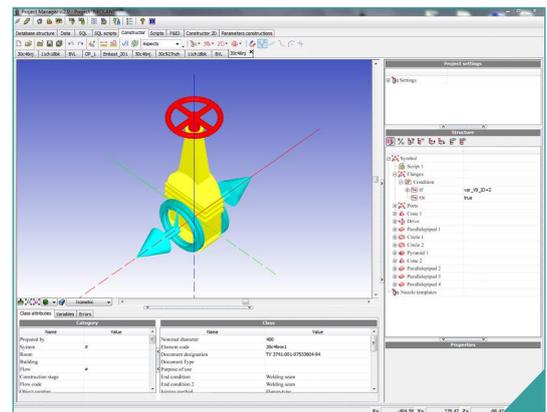
The system automatically generates the following kinds of documentation:

- Assembly drawings, layouts, and sections
- Isometric drawings
- Specifications
- Lists of pipelines
- Reports in any form

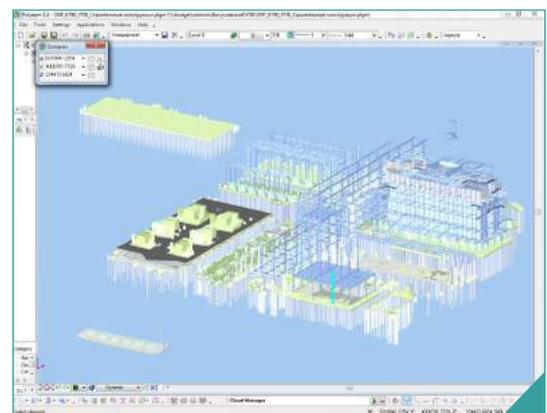
For viewing models by all stakeholders, POLYNOM uses InterBridge as its online 3D model viewer. Its compressed data format quickly transmits large amounts of data in a short time.



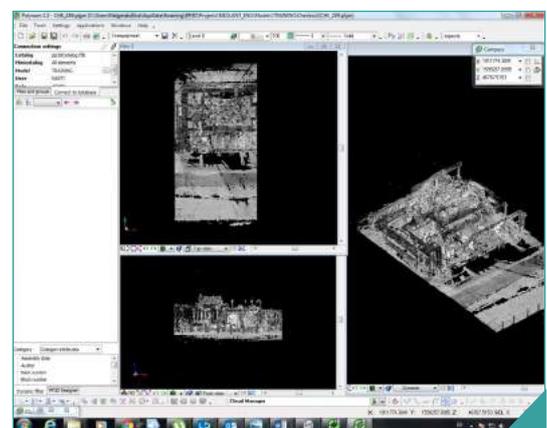
Process elements



Equipment



Construction elements



Laser scanning point cloud

## Massive 3D Parts Library

From the experience gained by NEOLANT Group, we know that the speed of designing with 3D CAD/BIM depends on availability of 3D parts from catalogs from directly inside the CAD/BIM application. To support this, we developed a standard parts catalog containing more than 50,000 3D elements for all design disciplines.

Our library system is flexible enough to handle changes that you may require. We provide timely updates of 3D elements to the library's database.

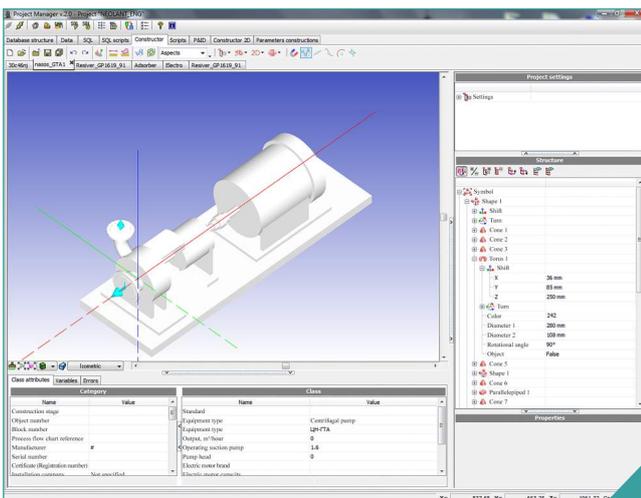
All ready-made basic symbols are included as standard in POLYNOM free of charge. To supplement the base library, NEOLANT offers you these services:

- Training customers in creating base symbols
- Training customers in creating base symbols as a part of the IT operations performed by NEOLANT's staff
- Translating symbols from existing 3D CAD and BIM libraries by NEOLANT's staff
- Creating new base symbols from scratch by NEOLANT's staff

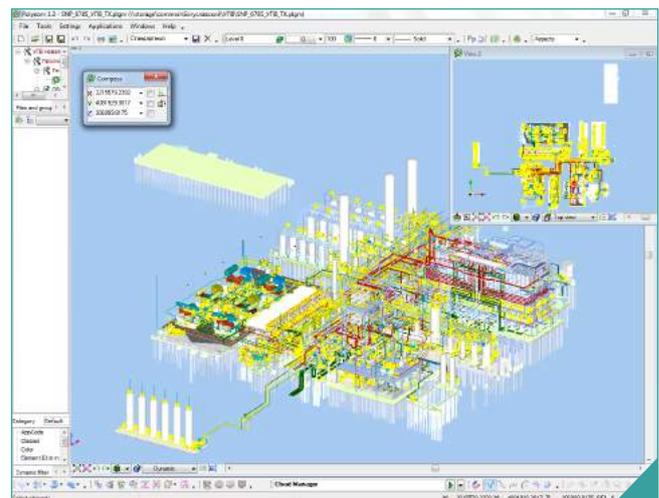
## State-of-the-Art User Interface

POLYNOM offers you our state-of-the-art, intuitive user interface that's user-friendly and easily-customizable. Our system provides you with easy access to the most frequently used tools and commands.

As well, seamless integration with InterBridge ensures clear and rapid navigation through digital models, making it simple and efficient to use 3D models during all of the facility's lifecycle stages.



Standard elements catalog



Combined 3D model in POLYNOM

## Team Operations

POLYNOM supports operations based on the use of a common database. Log files are maintained on all models that are uploaded, and the check-in/check-out mechanism controls user access to the data.

Our advanced system of collaboration allows several CAD/BIM users to work seamlessly with a single, up-to-date model. Access to shared areas in models is controlled by preset filters. This helps avoid doubling-up on work or working with out-of-date information -- eliminating a duplication of documents, which might occur otherwise.

## Minimal System Requirements

- **OS:** Windows 10, 8, 7, Vista, XP, or 2000
- **Processor:** Intel® Core i3 or faster, or compatible
- **Memory:** 2GB
- **Disk space:** 200MB of disk space for software, 1GB for project server
- **Display:** Discrete video card with 1024x768 resolution

## Consulting and Implementation

### Consulting

NEOLANT Group partners with leading 3D CAD/BIM vendors, such as Autodesk, Bentley Systems, Dassault Systemes, and Intergraph. We offer you our long-term expertise in implementing, updating, and integrating their products with ours. Our experience is crucial to selecting the best combination of options for your specific requirements. We ensure everything integrates well with each other.

### Implementation and IT Engineering

As the developer of POLYNOM, NEOLANT Group has become one of the Top 35 Russian IT firms after ten years of experience. NEOLANT develops information systems and comprehensive technical solutions in the areas of digital engineering, designing, planning, and managing complex industrial facilities during all their lifecycle stages. In addition, NEOLANT Group benefits from the practical experience we gained by being an engineering company in our own right. This means we know first-hand how to modify CAD/BIM components for IT purposes, and we test solutions in our own operations.

### Training and Technical Support

We can provide the staff to handle system administration, implementation, and supplementing the symbol library – or else train your people to do so.

NEOLANT is an engineering company with deep IT expertise and long-term experience in solving practical tasks in many industrial disciplines branches, and so we can readily deal with the tasks performed by IT experts and operators.

## To Learn More about POLYNOM

Feel free to consult with us about implementing POLYNOM for your specific needs. We will provide you with information on types and numbers of licenses, software implementation, the services we provide, and our pricing policy.

- Call us at  
**+7 (499) 999 0000 ext. 192**
- Write to us at  
**[polynom@neolant.com](mailto:polynom@neolant.com)**
- Register for a Webinar  
**[neolant.com/polynom/webinar](http://neolant.com/polynom/webinar)**
- Learn more about us and our services at our Website  
**[neolant.com/polynom](http://neolant.com/polynom)**

NEOLANT Group offers engineering and IT solutions for managing complex nuclear and power generation plants. Our solutions are based on the extensive IT experience and industry-specific knowledge acquired by the experienced NEOLANT team.

NEOLANT has software for information modeling, CAD, PLM, BIM, GIS, PDM, and PM. The experts at NEOLANT know how to integrate these systems into one other and into information systems used by customers.

NEOLANT provides the following services:

- Developing industrial facility information and simulation models to support the facilities' lifecycles.
- Developing and implementing systems to manage engineering and plant operations data through integration with CAD, PLM, BIM, GIS, PDM, and PM.
- Researching and developing engineering design aimed at implementing plant-scale processes, systems, equipment, and capital construction projects.

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