

## New in Vintech 11 (2021-2023)

### 1. Vintech RCAM 11 – new functions

- 1.1. Optimized functions and user interface:
  - 1.1.1. Block from dataset,
  - 1.1.2. automatic gaps in „common matrix” of rectangular parts,
  - 1.1.3. measuring distances between point from layout,
  - 1.1.4. common cuts by pair and in a matrix for fiber laser cutting,
  - 1.1.5. nesting and processing in a zone.
- 1.2. Nesting orders Database
  - 1.2.1. Data support in SQL Database,
  - 1.2.2. Supporting the data about the parts in structure order.stage.material-thickness or client.year.order.material-thickness,
  - 1.2.3. Supporting geometric information, general and technological attributes about parts,
  - 1.2.4. Selecting and loading with multiplicity in RCAM project selected parts from different orders.
  - 1.2.5. Enlarged functions for importing parts in DB, including batch import by specification and importing parts from RCAM project,
- 1.3. Function for “cutting to the material”
  - 1.3.1. Automatically creating the sequence of “cutting to the material”,
  - 1.3.2. Interactively changing the places of Lead-ins/Lead-outs in the sequence of “cutting to the material”
- 1.4. Processing common cuts with kerf=0 and kerf compensation of the path of:
  - 1.4.1. Blocks by pairs,
  - 1.4.2. bar parts with common cut, that are processed with parallel torches,
  - 1.4.3. regular blocks;
- 1.5. Fly cutting function for fiber laser cutting:
  - 1.5.1. for selected holes,
  - 1.5.2. for selected regularly nested rectangles,
- 1.6. Import of attributes of CAD file with nesting attributes;
- 1.7. Text or raster marking
  - 1.7.1. Importing texts from CAD file,
  - 1.7.2. availability to automatically nest the texts for marking,
  - 1.7.3. marking text from CAD attributes;
- 1.8. Optimized break-up of a multipart
  - 1.8.1. Automatic merging of identical instances in the job.
- 1.9. CAD Import from NX XML files
- 1.10. Optimized functionality for pre-piercing.

### 2. Vintech rBevel 2.0 – new functions

- 2.1. Function for working with complex bevels of K, X and Y type;
- 2.2. Automatic technology of parts with complex, single bevels and vertical cutting;
- 2.3. Extensions for specifying the sequence of processing of the different type of paths in a part.
- 2.4. Optimized “part-in part” of paths with slopes.

### 3. Vintech rDrill 2.0 – new functions

- 3.1. Optimized interface for defining torches and complex processings;
- 3.2. Availability for setting complex processing for processing identical holes in a zone (zone-by-zone setting of the torch sets);
- 3.3. New functions for milling:
  - 3.3.1. setting the milling tools,

- 3.3.2. milling over a line,
- 3.3.3. milling with add-ons for: round holes, inner contour, outer contour ;

3.4. Setting thread cycle parameters in thread tables

#### **4. Vintech NCV**

4.1. Added function to measure distances between points on NC paths.

#### **5. Multi-user Database for Vintech RCAM 11**

#### **6. Vintech Manager – CAPP system for management of the technological preparation of true shape nesting production. Includes:**

- 6.1. Multi-user Database for nesting orders;
- 6.2. Interfaces for importing nesting order data;
- 6.3. Planning of nesting and order stages;
- 6.4. Profiling the system for working of users with roles; Possibility to set the work organization as per the requirements of the company;
- 6.5. Management of planned jobs;
- 6.6. Management of nesting jobs and layouts;
- 6.7. Pricing and offering of total or partially ready nesting orders;
- 6.8. Interfaces:
  - 6.8.1. Vintech Manager – ViNES (MES system for nesting production),
  - 6.8.2. ERP system (TECHNOCLASS, ALPHA,...) – Vintech Manager,
  - 6.8.3. CAD/PLM system (KOMPAS, Pilot) – Vintech Manager.

#### **7. New functions in Vintech Duct2**

- 7.1. New macros for rectangular fittings;
- 7.2. Macros for S-shaped transition fittings remade as Reducers in two directions;
- 7.3. Added labels for printing on jet/laser printer;
- 7.4. Automatic and interactive nesting and NC programming with Vintech RCAM Lite;
- 7.5. Enlarged import of CAD geometry.

#### **8. Product structure of Vintech v11 CAM system**

- 8.1. Vintech RCAM 11 – CAM system for true shape nesting and NC programming. Optional add-on modules to Vintech RCAM:
  - 8.1.1. Vintech rBevel 2.0 library – for single and complex bevels and NC programming of plasma and oxy-fuel bevel cutting,
  - 8.1.2. Vintech rDrill 2.0 library – for technology for drilling and boring processing of holes, for milling processing, combined with thermal cutting,
  - 8.1.3. Multi-user Database for Vintech RCAM 11;
- 8.2. Vintech NCV – verifier of NC programs for thermal cutting,
- 8.3. Vintech Pipe- CAD/CAM system for NC programming of 2D pipe cutting machines,
- 8.4. Vintech Duct2 – CAD/CAM system for parametric design and NC programming of orders of flat patterns of HVAC system elements;
- 8.5. Vintech Manager – CAPP system for Technological preparation of true shape nesting;
- 8.6. ViNES (Vintech Nesting Execution System) – WEB-based intranet system for management of true shape nesting production with the following sub-systems:
  - 8.6.1. ViNES Warehouse SM – for management of warehouse inventory of plates and usable remnants for nesting by taking into account the weight and the shape of the plates, in different types of warehouse cells,
  - 8.6.2. ViNES Production – for management of the movement of Nesting layouts in a warehouse or a section with CNC machines for thermal and jet cutting of true shape nesting,
  - 8.6.3. ViNES Operator – for information service of the Nesting layouts processing of a single or a group of CNC machines by a single or a group of operators,
  - 8.6.4. ViNES Admin- WEB administration system.

# New in Vintech RCAM-Pro v10 (2019-2020)

## 1. The following new functions are added in Vintech RCAM-Pro 10 :

- 1.1. Advanced capabilities for import of multiple parts from a single CAD file; Advanced import of parts from CAD blocks.
- 1.2. Automatic collision avoidance using circumventing with rapid moves,
- 1.3. Advanced undo for paths and blocks,
- 1.4. Changing the technology of the nested parts by pattern,
- 1.5. Creating common cuts for selected parts in a zone with common cut snaps.
- 1.6. Automatic cutting gaps in a zone, in a frame
- 1.7. Automatic change of machine/technology for a separate layout from a project,
- 1.8. Preview of used and unused blocks in the Project Gallery,
- 1.9. New features for working with technology
  - Start/End point with line lead-in to the middle of the bridge,
  - Cutting the lattice from the middle, consecutively to two parts,
  - Functionality for setting cutting regimes by default
- 1.10. Possibility for automatic splitting of a nesting layout with combined processings and programming two settings using two methods:
  - first setting – drilling holes with a drilling, boring machine and second setting – thermal cutting processing,
  - first setting – thermal cutting processing of the contours of the nested parts and second setting – drilling holes of each part with a drilling, boring machine.

## 2. A post-marking functionality is added in Vintech RCAM-Pro and Vintech NCV

- 2.1. The post-marking is used to mark an operational information on selected parts on the nesting layout by a program. The operational information includes heat number and/or standard of the specific plate and texts for identifying a part, product, order.
  - The parts that have to be marked with operational information are defined much earlier than the production moment – in the CAD geometry or during the nesting with Vintech RCAM-Pro.
  - An NC program can be performed many times, but two consecutive plates for nesting may have different standards and different heat number. In this case the operational information for post-marking is different for each plate.
- 2.2. The location and orientation of the post-marking texts are specified in the part geometry by entering a postmarking tag:
  - The tag is imported automatically from the CAD geometry to Vintech RCAM-Pro,
  - the tag can be set at a fixed position on the part in Vintech RCAM-Pro.
- 2.3. Immediately before processing when the plate is on the machine the operator enters the information about the specific plate in Vintech NCV.
  - Vintech NCV generates respective NC commands for marking the operational information on each separate detail.
  - Vintech NCV uses a separate post-processor for each CNC machine.
- 2.4. A continuous engraving font has been added for plasma processing.

## 3. A new library Vintech rBI for batch import of parts by specification

- 3.1. The import specification can be in an XSLX spreadsheet or in CSV structured text.
- 3.2. It is possible to import the geometry of the parts multiple times per a single specification.
- 3.3. The capabilities for identifying parts from ungrouped geometry are extended,
- 3.4. The capabilities for identifying parts from geometry groped in CAD blocks are extended,
  - An import of parts from a DXF file with CAD blocks created as macro elements in KOMPAS-Graphic is developed.
  - The standard 2D CAD blocks, saved as DXF are imported as geometry and parts' attributes. The attributes are name, order, material, thickness.
- 3.5. It is possible for the user to associate parts from CAD files with specification positions.

## 4. Advanced functionality of the Vintech AMT module for common cuts with parallel torches of long and narrow „band“ type parts.

- 4.1. The parts for common cuts can:
  - have holes,
  - be with different length.
- 4.2. The creation of common cuts is done interactively.
- 4.3. Cross cutting of the adjacent parts is done with the leading torch.
- 4.4. The Height Tracking Point (Probing Point) can be moved along the cut to avoid collapsing of the torches at the beginning of the longitudinal cut.

## 5. Product structure of the CAM system Vintech v10

- 5.1. Vintech RCAM-Pro - CAM system for true shape nesting and NC programming,  
Optional add-on modules for Vintech RCAM-Pro:
  - Vintech rBevel- for bevels and NC programming of plasma and oxy-fuel bevel cutting,

- Vintech rDrill- for technology for drilling, boring of holes, combined with thermal cutting,
  - Vintech OrderDB – Data Base for order details
- 5.2. Vintech Pipe- CAD/CAM system for NC programming of 2D pipe-cutting machines,
- 5.3. Vintech NCV – verifier of NC programs for thermal cutting,
- 5.4. Vintech Duct- CAD/CAM system for parametric design and NC programming by orders for flat patterns of HVAC system elements,
- 5.5. Vintech Manager – true shape nesting preparation system,
- 5.6. ViNES (**V**intech **N**esting **E**xecution **S**ystem), True shape nesting preparation, warehouses and CNC production with true shape nesting.

# New in Vintech RCAM-Pro v9 (2016-2019)

1. **Vintech RCAM-Pro 9** is a native 64-bit application.  
It is installed on 64-bit operating system and works with projects, for which the following are needed:
  - Extended RAM,
  - faster nesting.Vintech RCAM-Pro 9 can be installed on 32-bit operating systems as a 32-bit application.
  
2. **Vintech RCAM-Pro 9** provides new functions for:
  - 2.1. Work with galleries
    - New Blocks gallery with editing functions,
    - new functions in Parts gallery for group or single editing of technological attributes:
      - limiting the nesting in holes,
      - management of mirror and common nesting,
      - editing orders.
  
  - 2.2. Extended import of CAD geometry
    - Editing of part geometry with integrated external CAD system,
    - export of filtered part geometry to DXF file
    - import from DWG file.
  
  - 2.3. Nesting management by orders
    - Color visualisation of parts by order,
    - exclusion/inclusion of parts for nesting, according to order,
    - nesting by part priority.
  
  - 2.4. Automatic change with one click on:
    - Kerf,
    - machine, carriage/station, tool, regime, postprocessor.
  
  - 2.5. Lead-Ins/Lead-Outs by paths
    - Ignition at the edge and outside the plate,
    - Lead-In with arc,
    - mass editing of lead-ins/lead-outs and gaps,
    - lead-in with „L-lock“, „L-lock“ on path,
    - „eyelet“ on path and lead-in from „eyelet“,
    - new bridge type- “semi-bridge”
    - lead-in from the corner of an adjacent path
  
  - 2.6. Defining two qualities of the material assortment in the used part of the plate.
  
  - 2.7. Work with Usable Remnants (UR)
    - Applying margins on an UR,
    - defining an UR of UR with margins,
    - new type of UR – Remnant to an order
  
  - 2.8. Batch mode nesting with nesting control with or without paths and route, with cutting of UR and marking
  
  - 2.9. NC programs setup
    - Test points (optional) along the border of UR for preliminary walk through,
    - assigning an end point of the NC program.
  
  - 2.10. Improvement in different functions
    - Tracing by parts
    - interactive nesting
    - common cuts
    - part orientation
    - pre-piercing of start holes
    - priorities of the orders for nesting
    - removing the marking along with zone
    - selection and visualisation of contours without paths
    - switching on/off parallel cutting, clean up, marking and processing by points, in the NC panel
    - save an UR, created in a layout, as a plate in the project and in Plates dataset
  
  - 2.11. The library Vintech rSales for pricing and offering is part of the Vintech RCAM-Pro 9 bundle.  
Functions for pricing and offering are added
    - Pricing of processing taking into account the machine
    - extended capabilities for reporting scrap
    - two qualities/prices of the used part of a plate.

2.12. Since 01.06.2017 the library Vintech rPipe for design of unfolds of parts from pipe connections is part of the Vintech RCAM-Pro 9 bundle.

### 3. Vintech NCV

- Working with CNC machines profiles,
- Improved verification of NC programs with subroutines for Trumpf and Mazak lasers.

### 4. Product structure of the Vintech v9 CAM system

- Vintech RCAM-Pro- CAM system for true shape nesting and NC programming,  
Optional add-on Vintech RCAM-Pro modules:
  - Vintech rBevel- for bevels and NC programming for plasma and oxy-fuel bevel cutting,
  - Vintech rDrill- for technology for drill-boring processing of holes, combined with thermal cutting.
- Vintech Pipe - CAD/CAM system for NC programming of 2D pipe cutting machines.
- Vintech NCV- verifier of NC programs for thermal cutting,
- Vintech Duct- CAD/CAM system for parametric design and NC programming of orders for unfolds of fittings of HVAC systems,
- Vintech NES (**N**esting **E**xecution **S**ystem) – system for warehouse management and true shape nesting production.

# New in Vintech RCAM v8 (2014-2015)

## 1. Product structure of Vintech RCAM v8

- Vintech RCAM-Pro - CAM system for true shape nesting and NC programming,  
Optional add-on Vintech RCAM-Pro modules:
  - Vintech rBevel- for creating bevels and NC programming for plasma and oxy-fuel bevel cutting,
  - Vintech rDrill- for creating technology for drill-boring processing of holes, combined with thermal cutting.
  - Vintech rSales- pricing and offering of true shape nesting.
- Vintech RCAM 8 – a bundle of the CAM systems Vintech RCAM-Manager, Vintech RCAM-Pro and Vintech NCV.
- Vintech RCAM-Duct- CAD/CAM system bundle for parametric design and NC programming of orders for unfolds of fittings of HVAC systems,
- Vintech RCAM-Pipe - CAD/CAM system for NC programming of 2D pipe cutting machines.
- The distribution of Vintech RCAM-Master has been stopped.

## 2. Vintech RCAM-Pro 8

- New Parts gallery and parts functions
- extended part import with CAD splitter,
- interactive extend/trim of plates,
- chain cutting – automatic and interactive,
- new bridge types – negative and corner,
- improved work with Usable remnants – step cutting added,
- new capabilities for management of the automatic cutting of tags and bridges,
- improved automatic defining of start/end point for internal paths,
- improved work with materials with certificates, heat No. and plate standards,
- Blocks dataset supports full technology in block.

## 3. Vintech rBevel

- extended and fully-functional management of bevels,
- technology points on paths,
- extended management of processing external and internal corners,
- processing with sweep

## 4. Vintech NCV

- Verification of programs and program packages,
- DNC for programs and program packages.

# New in Vintech RCAM v7 (2013-2014)

## 1. New in the product structure of Vintech RCAM

- Equalized basic functionality of Vintech RCAM-Pro and Vintech RCAM-Master,
- the distribution of Vintech RCAM-Lite and Vintech RCAM-Xpress has been stopped,
- Vintech RCAM-Manager v1.0 – Specialized system for management of the preparation of orders and processing plans for true shape nesting and NC programming.

## 2. Vintech RCAM-Pro 7

- New Project gallery for working with plates and nesting layouts,
- Project navigator added to improve the user interface,
- unique coloring of parts and blocks
- extended capabilities for fixing CAD geometry,
- import and break-down of multiparts,
- added DSTV and SVG formats for import of parts,
- extended automatic nesting: mirror, by pairs, with technology,
- new processing technology management functions: interactive chain cutting, including chain cutting with circumventing,
- change in parametric macro – direct value input in the dimensions of the drafts,
- setting and reporting the number of layouts in a package in reports.
- extended capabilities of settings and datasets

## 3. Vintech RCAM Manager

- Management of the production preparation process – from accepting the order to loading NC programs in the CNC controller,
- Control and monitoring of each part, order, job, nesting layout and NC program during the process,
- Automatic nesting by jobs from order.

## VINTECH — Your partner for CNC thermal and jet cutting of sheet material!

VINTECH is the author and the creator of **Vintech** CAM system – a system based on IT excellence and more than 40 years of experience in the integration of effective CNC/CAM/MES solutions.

**Vintech RCAM 11-** CAM system for true shape nesting and NC programming,  
**Vintech Pipe-** CAM system for NC programming of 2D pipe cutting machines,  
**Vintech Duct-** CAD/CAM system for production of flat patterns of fittings of HVAC systems,

**Vintech NCV-** Verifier of NC programs for thermal cutting,  
**Vintech Manager-** CAPP system for preparation of the nesting production,  
**VINES-** MES system for management of the nesting production.

We create software for managing Your future!