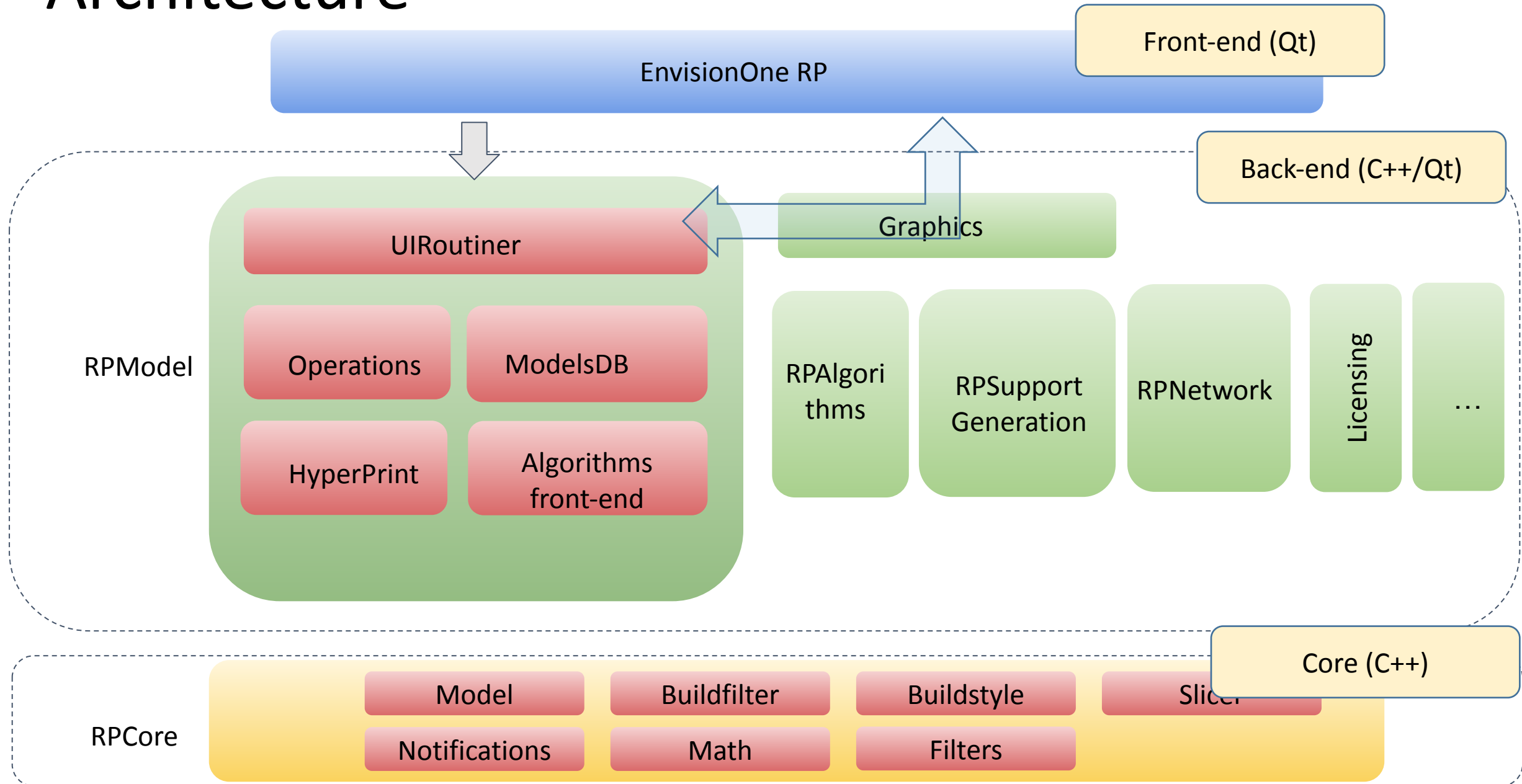


EnvisionOne RP software details

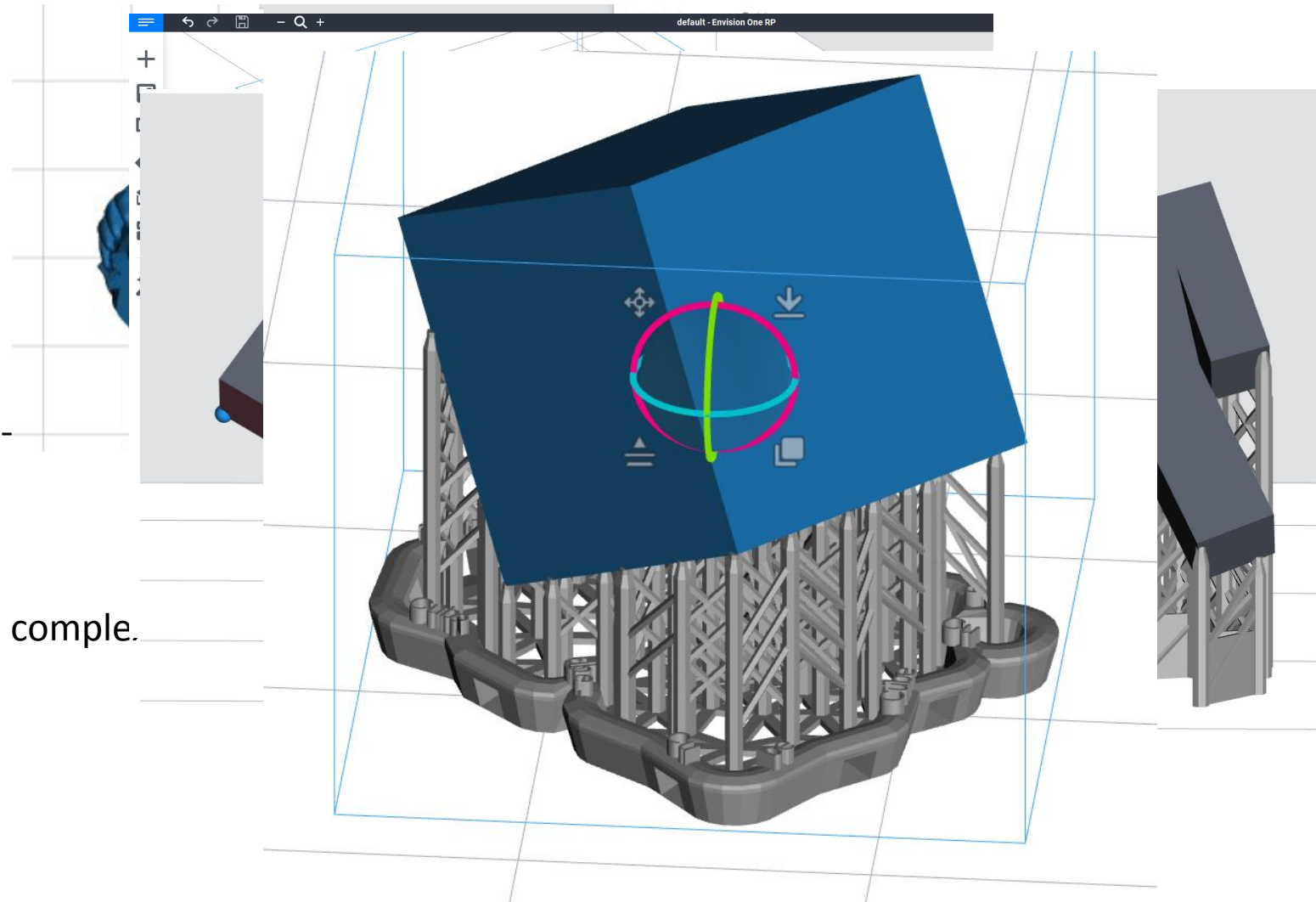


Architecture



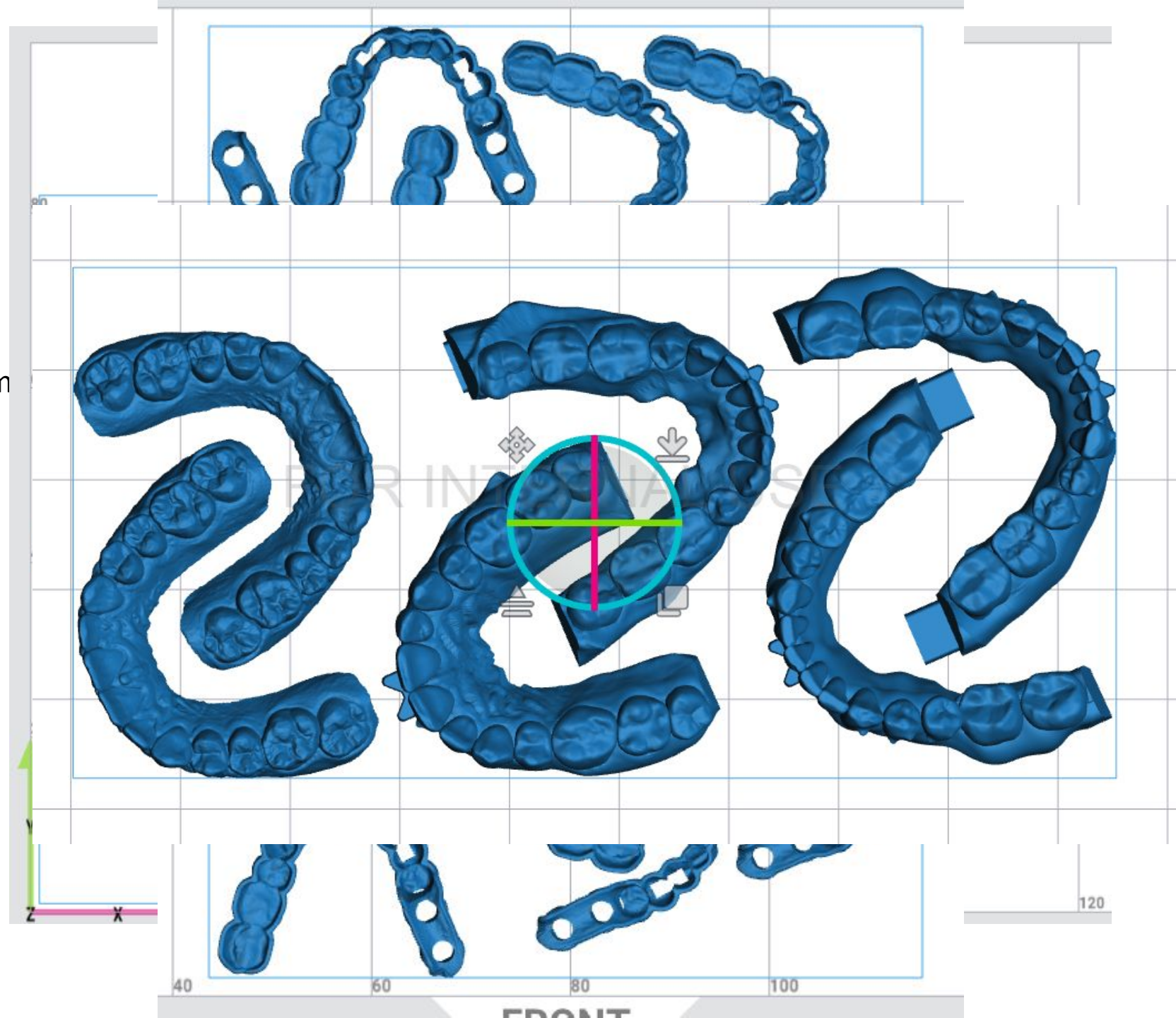
Proprietary algorithms

- Select base
- Detect largest flat surface
- Labeling
- Auto-labeling (find proper regions)
- BVH trees (picking, collision detection)
- Support generation
 - Anchors, Reinforcements, Fences meta-
 - Perforated labeled baseplate
- Auto-placement
 - Legacy Fourier placement
 - NFP placement (more dense, but more comple.
 - Special dental placement
 - A-type models placement
 - Stacking placement
- Hyper-print workflows
 - Orient
 - Generate supports
 - Auto-place
 - Prepare job



Auto-placement:

- Legacy Fourier placement
 - Low Performance
 - Hard to support
- NFP placement
 - Better performance
 - Considers center of the platform
 - More precise
 - We have control on it
- Special dental placement
 - Considers jaw shape



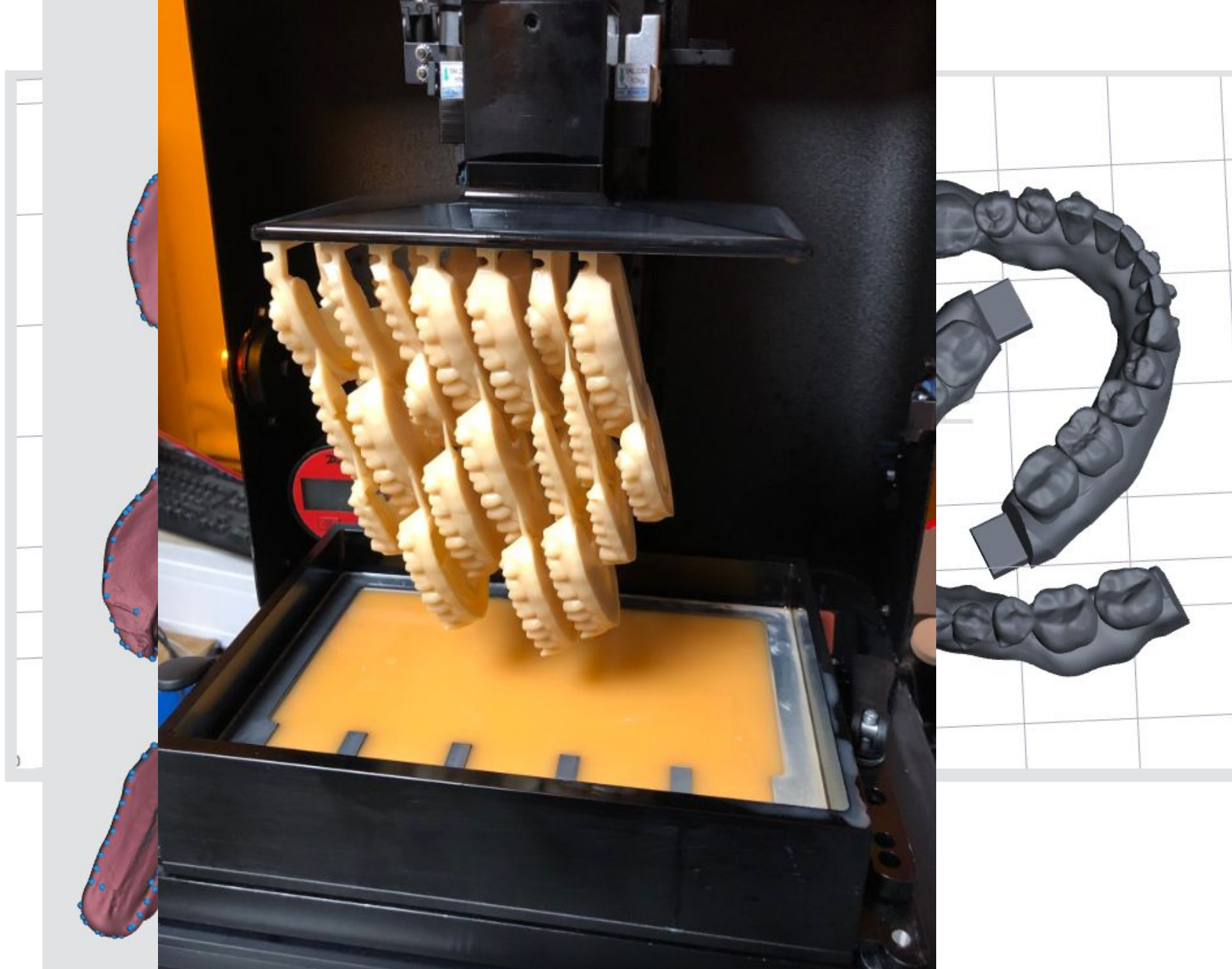
Hyper-print workflows

4 steps:

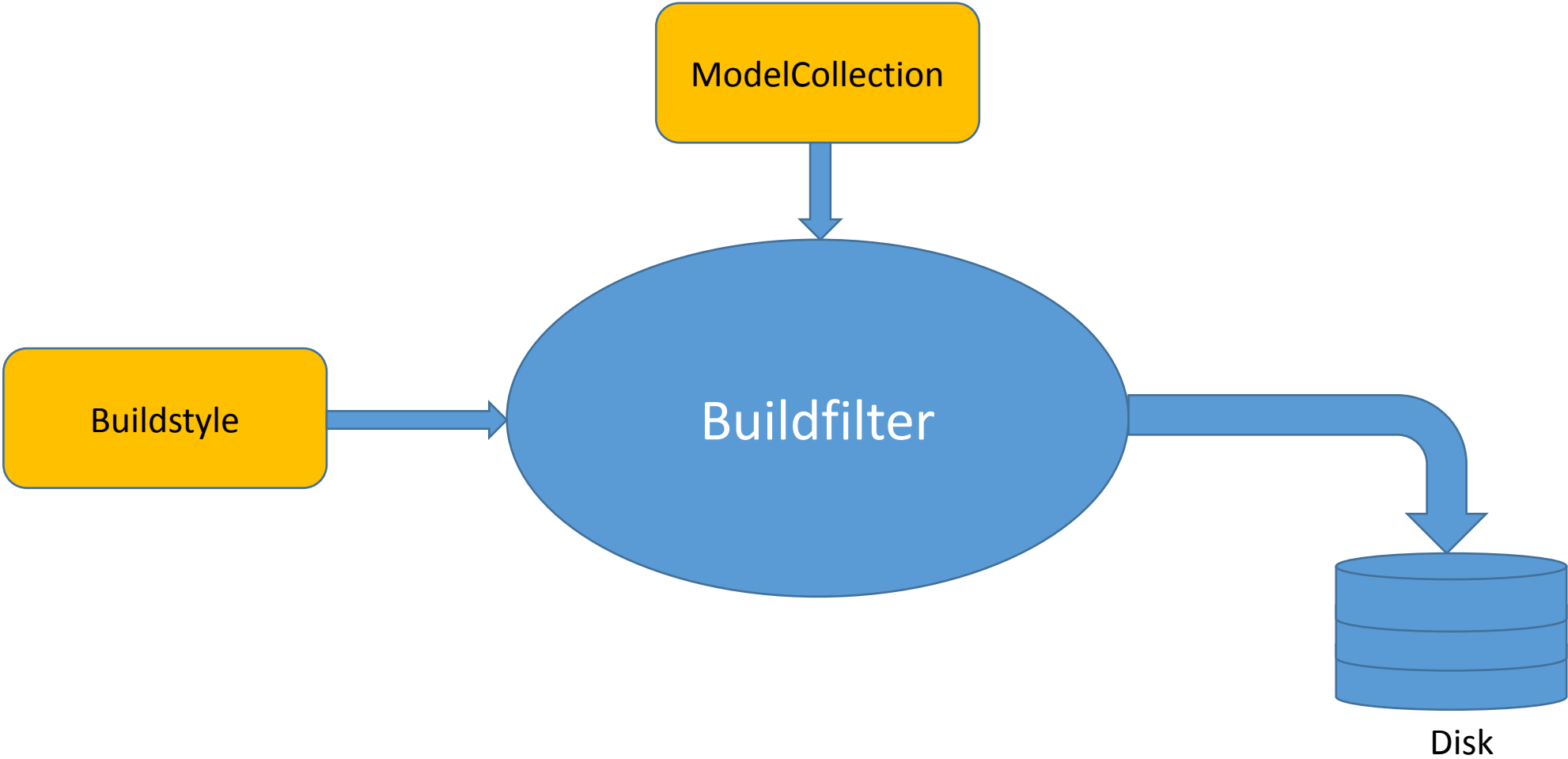
- Orient
- Generate supports
- Auto-place
- Prepare job

Types of a workflow

- Basic
- A-Type models
- Dental models (with flat base)
- Denture models (beta)
- Stacking (beta)

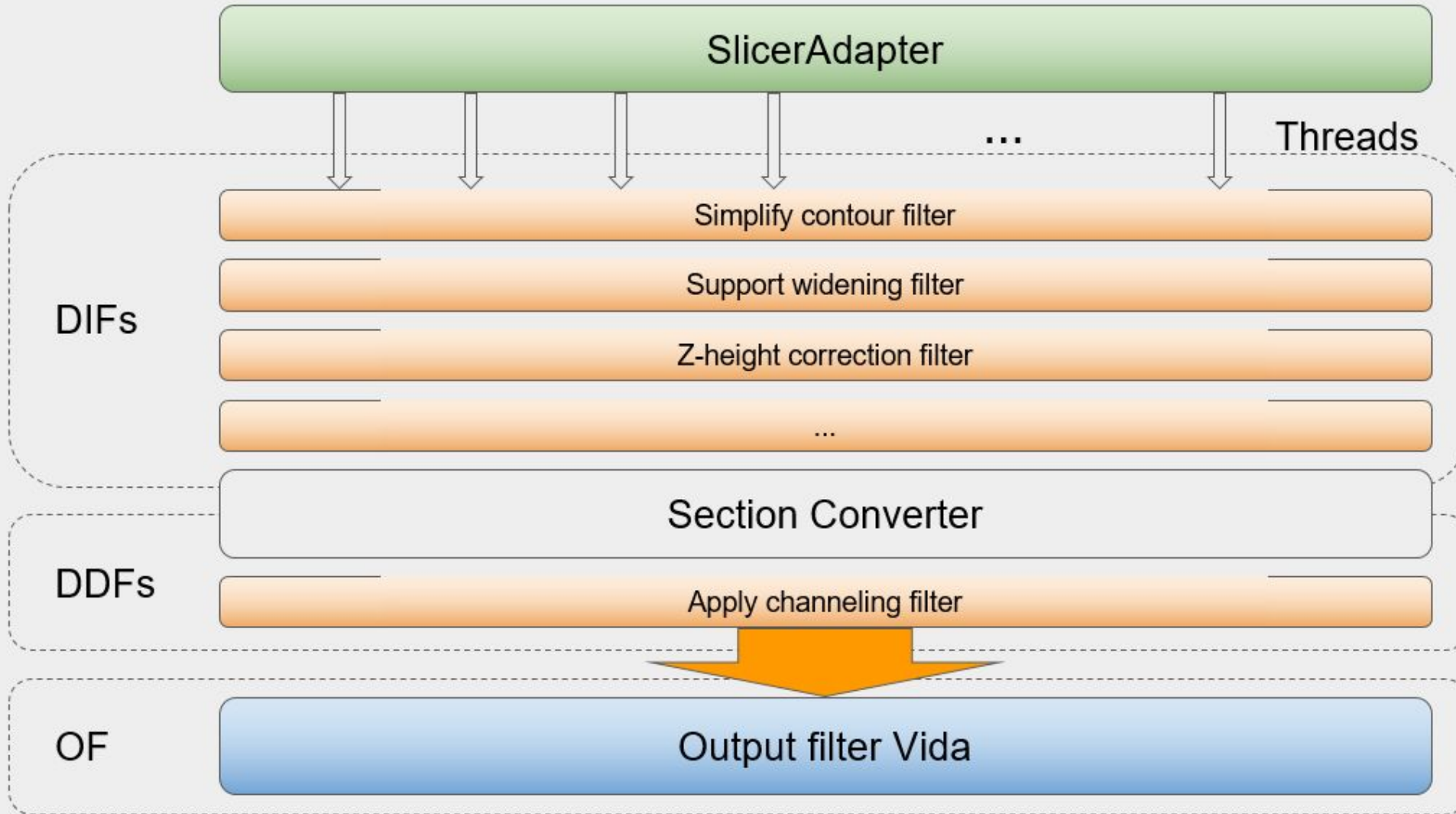


Job generation



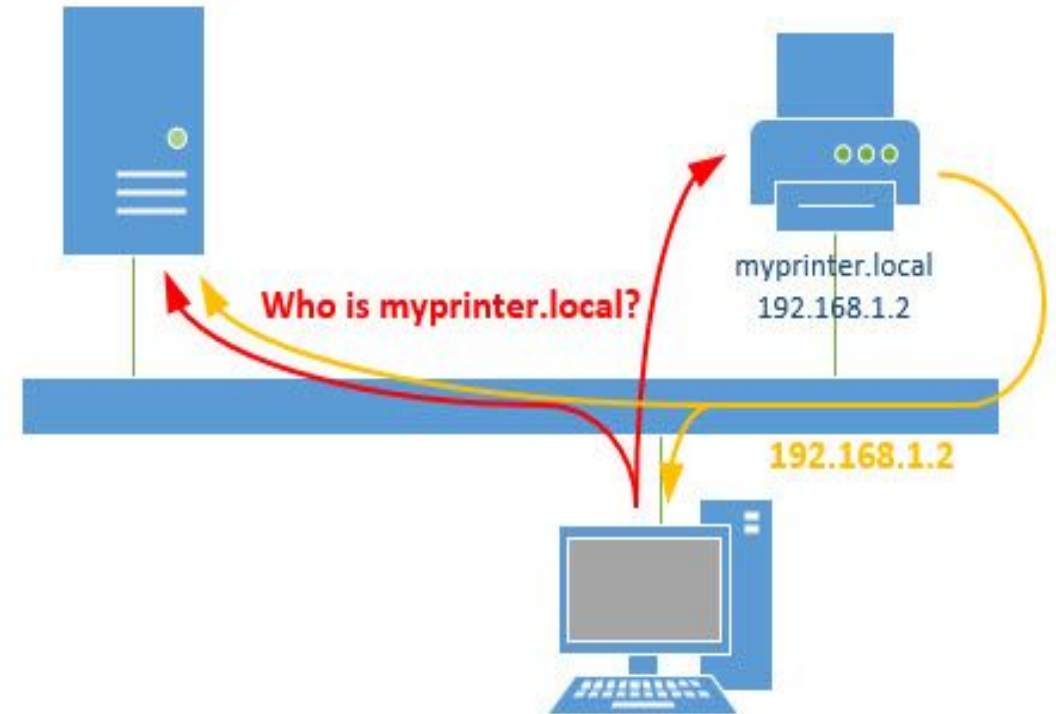
Buildfilter architecture

Buildfilter DLP, 3SP



Printer discovering

- DLPCS Core family : mDNS
 - Standard way of discovering devices
 - Printer responds to service name
 - Query contains IP and port
 - Query contains additional info: CS version, Encrypted/Unencrypted connection etc.
- ServiceDiscover.dll (own)
- Job uploading:
 - SMB
 - FTP
 - SCP



Other useful features:

- Import several file formats:
 - Sliced data (.slc, .cli)
 - Mesh data (.stl, .3mf)
- Reports library
 - Processes HTML template to PDF report
- Setting custom shortcuts
- Different display languages (Eng, Germ, It, Fr, China)
- Send feedback to support team
- Send license request
- Licensing engine
 - Applied in EnvisionOneRP, Buildstyle editor
 - Can be applied to other software
- Update server:
 - Simple node.js app
 - Triggered by Jenkins after software is deployed to download server
 - Sparkle compatible format (RSS-like XML)
 - Per-branch feed
 - Can be cloned for other software

Thank you!