



# Alto ERP introductory presentation

2019/2020





# Industry background Development capabilities



### Proud member of the UPB Group



UPB is an industrial group of companies, whose core business is complex building construction, including the design, production and assembly of structures.

The group incorporates glass, steel and concrete structure production units, a cogeneration station production unit and a mechanical engineering production unit.













CLIAA PORTER

#### PRODUCTS BIM ERP SYSTEMS SMART FACTORY/

BIM ERP SYSTEMS SMART FACTORY/ RETROFIT SOLUTIONS TEKLA PLUGINS

**INDUSTRY 4.0** 

DIGITALISATION SOLUTIONS IN UPB GROUP'S FACTORIES AND STOREHOUSES

IN

by implementing

automatisation

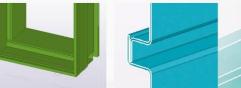
solutions



ALTO 4.0 ERP is a full cycle business process management system designed for construction industry through combination **digital capabilities** and **deep industry knowledge** 

TEKLA PLUGINS

ALTO 4.0 has developed a set of tools that covers the workflow on modeling in TEKLA Structures.















#### Alto 4.0, Alto Construction ERP and Alto Exchange



**ALTO 4.0** is a digital expertise and solutions provider that specialises in the development of BIM business management systems and smart factory solutions for the construction industry.



**Alto ERP** is a group of ERP systems built for the construction industry, designed to improve business performance through streamlined business process execution, effective information exchange and fact-based decision making.



**Alto Construction ERP** is a multi-structure supporting BIM/CAD integrated ERP system for general contractors with/without internal production capacity.



**Alto Exchange** is BIM/CAD data exchange platform designed to improve project execution through effective information exchange between general contractors and suppliers.

Alto Exchange





# BIM integrated ERP Systems



# Alto ERP

BIM/CAD integrated ERP System for projectbased precast, steel and facade manufacturers designed to improve business performance through:

- ✓ Streamlined business process execution,
- ✓ Effective information exchange; and
- ✓ Fact-based decision making





#### Oversee everything, anywhere, anytime

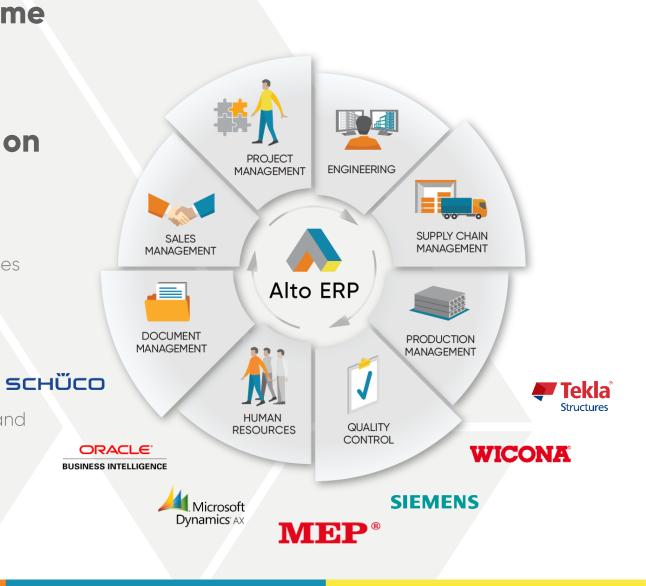
- ✓ Web-based system
- ✓ Seamless, full cycle business unit connectivity
- ✓ Complete progress status info for all business units

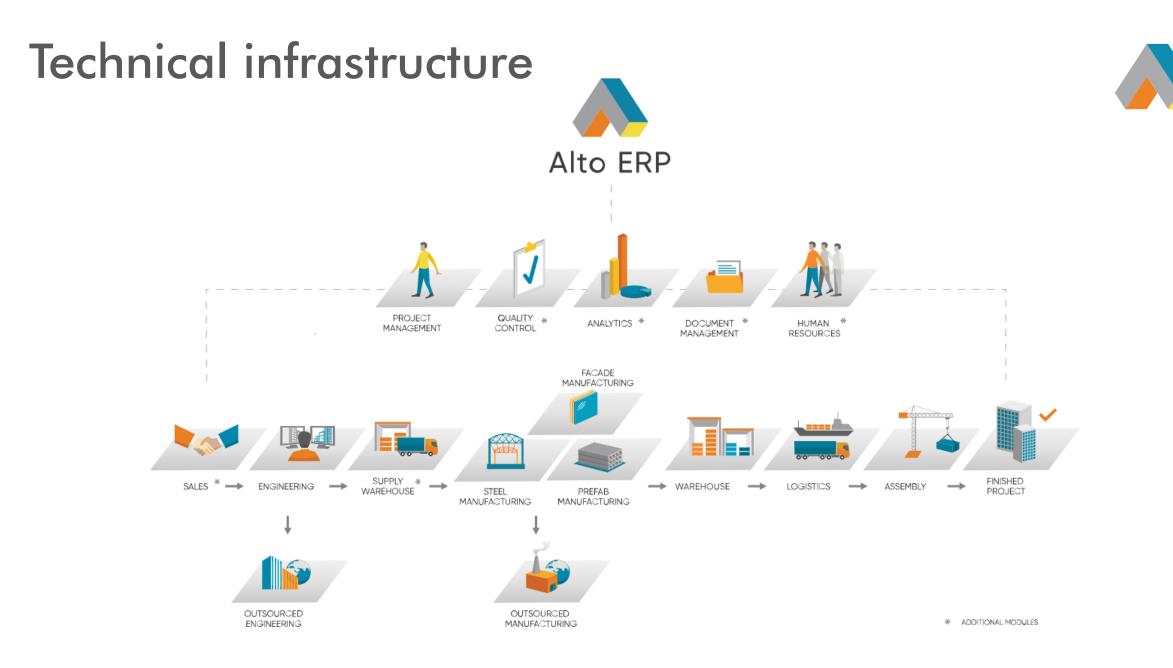
# Be agile, enjoy clarity and focus only on adding value

- Process automation
- $\checkmark$  Real time progress information
- ✓ Modularization, customization and integration possibilities
- ✓ Industry-specific focus

#### Position your company for growth

- ✓ Improve business performance
- ✓ Reduce manual work
- Effective communication, fact-based decision making and higher value to your customers







# ERP module functionality and benefits

sales and optimisation is project engineering in production is delivery is assembly is service

## Sales

- Document and track sales proposals
- Analyze, improve and repeat your best sales practices
- Configurable product/service/pricing options
- Track your sales-team performance
- Create/update/print cost estimations with ease

| roject name  CROPOLIS LFA shopping center LTO DEMO LTO project mazing Garages partements Oslo | Won                 |   | Client     Construction France     Deutsche build     Construction Swerige     res / Planning - @Reports - @Logistics - @Common | <ul> <li>Deadline</li> <li>12.03.2019</li> <li>01.05.2019</li> <li>27.02.2020</li> </ul> | ¢ []                                  |  |
|---|---------------------|---|---|--|---------------------------------------|--|
| LFA shopping center<br>LTO DEMO<br>LTO project<br>mazing Garages                              | Won<br>Won<br>Won   | Real project<br>Tender<br>Alto ERP Aux @ Q. Colfrogress Wingu         | Deutsche build<br>Construction Swerige  | 01.05.2019<br>27.02.2020   |                                       |  |
| LTO DEMO<br>LTO project<br>mazing Garages   | Won<br>Won          | Tender<br>Alto ERP Ann <b>a</b> Caprojects • Winqu<br>rifes           | Construction Swerige  | 27.02.2020   |                                       |  |
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| erlin Shopping Mall   | Won                 | TW, PRODUCT CROUPS - 28.02.2019<br>CONVERT CONSTRUCTION Swerige       | STATE DATE: 2019-02-01<br>14/2 04/2, 2019-11-01<br>DEMDASTATE DATE: 2019-02-01  |  |                                       |  |
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| ailly Museum  | In process          | BURGHTUNG ENGENERN MUSK Kate<br>DOMERNE 27.02.2020                    | AMEMILY THO DATE 2019-10-25<br>PLANNED PROJECT AMOUNTS  |  |                                       |  |
| K Mercedes Benz Dealers   | Won                 | PROFITY A<br>HELATED PARTIES • ALTO Prefab<br>• ALTO Steel            |   | ● Q. DProjects * Winquiries Planning * ■Registers *                                      | @itepons • #Logistics • ♥Clams • ∎Pur | urchasing * ¥Absences * �Admin *                         |
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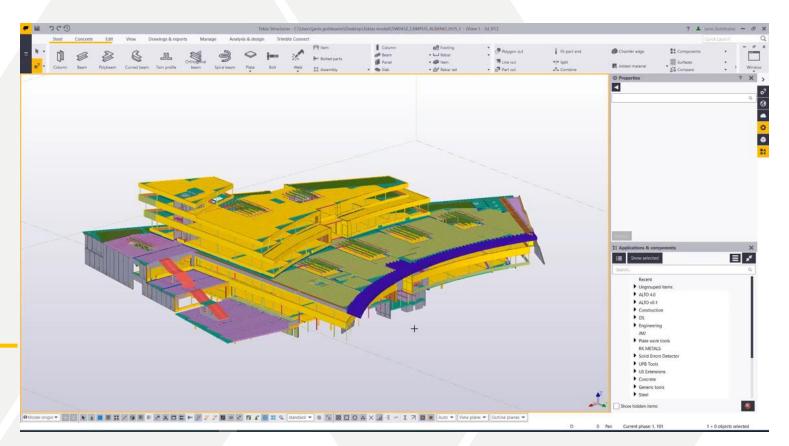




### Engineering (before upload)

- Easy element information upload from:
  - ✓ Designing software (autosync with Tekla Structures)
  - ✓ Excel (.csv format)

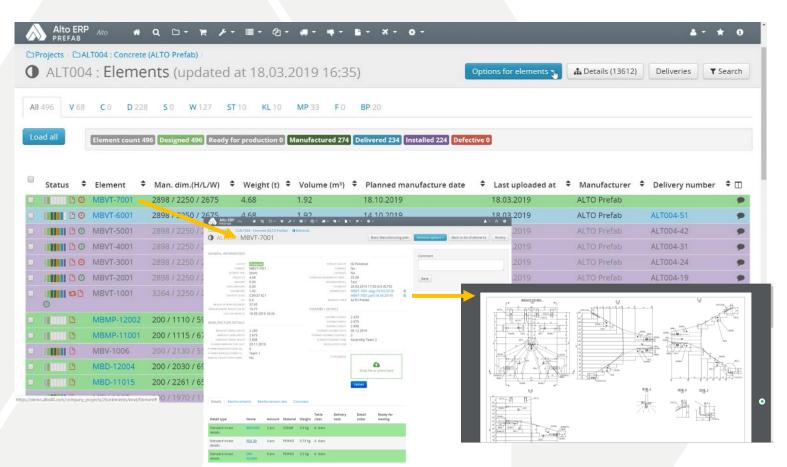
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# Engineering (uploaded)

- Track and plan according to element status
  - ✓ Color-coded element lifecycle and manufacturing status
- Access relevant element
   information
  - Dimensions, drawings, detail lists, etc.
  - ✓ Revisions
- Supports:
  - ✓ LOD 400
  - ✓ Outsourced engineering



ASSEMBLY SALES AND OPTIMISATION IN PROJECT ENGINEERING PRODUCTION DELIVERY



# Supply warehouse

- Access real-time information about:
  - ✓ Raw material warehouse stocks,
  - ✓ Orders and their progress statuses
- Easily:
  - ✓ Generate necessary detail orders for manufacturing
  - Register incoming order from other modules
  - ✓ Plan packing lists

|  | 22   |                  | Order deadline *   |  |  |        |                    |       |   |   |   |                      |
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| 1 1 VP20<br>2 2 VP20   | 1  | • 0.12           | Alto EPP 40<br>Antra A<br>CANTOR: Concert (ATO Pro-<br>ALTOO: Concert (ATO Pro-<br>Sector 40)<br>Sector 40<br>Sector 40<br>S   | F<br>Control of the second of th | WC<br>⊷ ■・ @<br>fab) : Orc   | St     | Cancel<br>andard i | ncast | ¢<br>02.12.201  | 9   | €<br>16.12.2019<br>* •  |                      |
| 1 1 VP20<br>2 2 VP20<br>1 1 VP20   | •<br>1<br>2  | • 0.12 0.14 0.03 | Alto EPP 40<br>Antra A<br>CANTOR: Concert (ATO Pro-<br>ALTOO: Concert (ATO Pro-<br>Sector 40)<br>Sector 40<br>Sector 40<br>S   | ALTO<br>Preceived orde<br>ete (ALTO Pre<br>ALTO  | WC<br>⊷ ■・ @<br>fab) : Orc   | St     | Cancel<br>andard i | ncast | ¢<br>02.12.201  | 9   | <ul> <li>16.12.2019</li> <li>o</li> <li>12.2019</li> <li>12.2019</li> </ul> |                      |
| 1 1 VP20<br>2 2 VP20   | •<br>1<br>2  | • 0.12<br>0.14   | Alto EPP 40<br>Antra A<br>CANTOR: Concert (ATO Pro-<br>ALTOO: Concert (ATO Pro-<br>Sector 40)<br>Sector 40<br>Sector 40<br>S   | ALTO<br>Preceived orde<br>ete (ALTO Pre<br>ALTO  | WC<br>⊷ ■・ @<br>fab) : Orc   | St     | Cancel<br>andard i | ncast | ¢<br>02.12.201  | 9   | 16.12.2019  |                      |
| 1 1 VP20<br>2 2 VP20<br>1 1 VP20   | •<br>1<br>2  | • 0.12 0.14 0.03 | Alto EPP 40<br>Antra A<br>CANTOR: Concert (ATO Pro-<br>ALTOO: Concert (ATO Pro-<br>Sector 40)<br>Sector 40<br>Sector 40<br>S   | ALTO<br>Preceived orde<br>ete (ALTO Pre<br>ALTO  | WC<br>⊷ ■・ @<br>fab) : Orc   | St     | Cancel<br>andard i | ncast | ¢<br>02.12.201  | 9   | <ul> <li>16.12.2019</li> <li>o</li> <li>12.2019</li> <li>12.2019</li> </ul> |                      |
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#### SALES AND OPTIMISATION DO PROJECT ENGINEERING PRODUCTION DELIVERY TO ASSEMBLY SERVICE



# Manufacturing

#### Access information about :

- ✓ element life-cycle statuses
- ✓ element drawings, CE marking, detail lists etc.
- ✓ Element parts orders/statuses from external partners
- ✓ production capacity based on estimations, and available resources
- Automatic:
  - ✓ element production time estimation
  - ✓ production planner and pallet optimizer
  - ✓ (configurable) automatic worker pay generation
  - ✓ Sync with Tekla Structures, MS Dynamics AX, Oracle BI

|   |        | 25.11.2019  | 26.11.2019  | 27.11.2019                                      | 28.11.2019  | 29.11.2019   |
|---|--------|---|---|---|---|--|
| 25.11.2019 🗃 29.11.2019 😁 ><br>Search   | Team 1 | m2: 64.69 🖶 📥<br>m3: 1.92 E 🕹<br>h: 29:30 / 40:00<br>eur: 304.46  | m2: 91.26<br>h: 33:36 / 40:00<br>eur: 346.90 ↔      | m2: 98.54<br>h: 37:18 / 40:00<br>eur: 385.09    | m2: 63.79<br>h: 32:35 / 40:00<br>eur: 336.31      | m2: 83.70<br>m3: 1.92<br>h: 35:03 / 40:00<br>eur: 361.77         |
| Elements Palettes   |        | 962.40% 🖨 📥 🖽   | ALTO DEMO 2 39%                                     | 878 58% ⊖ ≛ ■<br>MBBP-6002 (R) Rolled   ALT004  | 266.52%   | 033 43% 🕀 🔺 🎫  |
| ect All 🔻   |        | MBV-6002 (S) Polished   ALT004<br>MBW-6006 - Other   ALT004   8.  | MBW-6007 - Other   ALT004   10                      | MBW-6011 - Other   ALT004   15                  | MBW-6008 - Other   ALT004   13                    | MBW-7008 - Other   ALT004   13<br>MBW-7006 - Other   ALT004   8. |
| All<br>Balcony slab<br>Beam   |        | 964 46% 🔿 🔺 💷   | 963 40% ↔ 초 🖽<br>MBV-6005 (S) Polished   ALT004     | 269 48% ↔ 초 11<br>MBSM-6001 (R) Rolled   ALT004 | 267 63% ↔ ≛ 11<br>MBV-7003 (S) Polished   ALT004  | 946 55% 🕹 🔺 📰<br>MBV-7006 (s) Polished   ALT004                  |
| e All •   |        | 841 67%   | MBV-6003 (S) Polished   ALT004                      | MBSM-6002 (R) Rolled   ALT004                   | MBV-7004 (S) Polished   ALT004                    | MBW-7004 - Other   ALT004   8,                                   |
| Assembly date is planned  |        | MBV-6004 (5) Polished   ALT004                                    | 961 60% 🔿 🕹 🎫                                       | 270.64% 🖨 📥 🎫                                   | MBV-7005 (S) Polished   ALT004                    | MBV-7002 (S) Polished   ALT004                                   |
| 004<br>N-7001 - Other   ALT004   19.71 m <sup>2</sup>   10 h 36 min   11.12   |        | MBVT-6001 (S) Polished   ALT00-<br>MBW-6005 - Other   ALT004   14 | MBW-6009 - Other   ALT004   15<br>MBKL 12.0m x 4.5m | MBW-6001 - Other   AL1004   15                  | 295 17% 🔒 差 🖽                                     |  |
| N-8005 - Other   ALT004   14.1 m²   17.12   |        | WIDW-0005 - Other   AL1004   14                                   | 874 629   |   |   |  |
| W-8007 - Other   ALT004   10.58 m²   6 h 1 min   17.12  |        |   | MBW   |   |   | A 11<br>00.1<br>2.78   |
| W-8001 - Other   ALT004   19.71 m <sup>2</sup>   17.12<br>W-8002 - Other   ALT004   13.18 m <sup>2</sup>   7 h 17 min   17.12 |        |   | MBW   |   |   |  |
| W-8003 - Other I Al T004   10 58 m²   2 b 46 min   17 12  |        |   | MBV-7005<br>AL1004<br>06.12.2019<br>3.73m x 2.78m   |   | MBV 7004<br>AL1004<br>06.12.2019<br>4.53m x 2.78m |  |

#### ASSEMBLY SALES AND OPTIMISATION



# Delivery

#### • Automatic:

- ✓ Delivery order aggregation from other Alto ERP modules
- ✓ Transport order form generation
- ✓ Report generation
- ✓ Warehouse sync
- ✓ Sync with Tekla Structures, MS Dynamics AX
- Combine multiple shipping/freight options
- Delivery phase support
- Plan, create and track:

✓ Packing lists

✓ Order statuses

| Shipme                                    | ents      |   |   |             |   |  |  | ▼ Search   | Export to XLS   | Unify shipments | Actions -   |
|---|-----------|---|---|-------------|---|--|--|--|---|-----------------|---|
| Manufacturer<br>ALTO Prefab<br>ALTO Steel | X Deliv   |   | *   |             |   |  |  |  | Filter by   | A Search        | Cancel  |
| Project name                              | Delivery  | Manufacturer                              | Weight (t) 🗘  | Ready for l | oading 🗘  | Unload at  | Description  |  | Bill number<br>Carrier  | ruck nr         | Trailer nr  |
| ALTO DEMO                                 | ALT004-59 | ALTO Prefab                               | 6.06  | 28.11.2019  | 15:53   | 05.12.2019 08:00 🗭   | D. H - 1200,   | W - 291, L - 6595  | Customer<br>From port   | A1383 🕼         | G169 🕜  |
| ALTO project                              | ALTO1-66  | ALTO Prefab                               | 0.0   | 24.12.2018  | 08:00   | 31.12.2018 08:00 🔐   | Cancelled  |  | Grouped?  |                 | Ø   |
| ALTO project                              | ALTO1-58  | Alto ERP Alto                             | # Q 🗅 - 🛪   | . ≠ · ■ · Q | )• <b># • •</b> ••  | B * X * 0 *  |  |  | Loadat<br>≜∙☆ 0   | + A1473 🐼       | G187 🗭  |
| ALTO project                              | ALTO1-2   | ALT004-59                                 | <del>(</del>  |             |   | Printouts - Cancel loading   | ✓ Approve  | Edit 🗎 Delete Lis  | st of deliveries History  | AA1239 🐼        | G136 📝  |
| ALTO project                              | ALTO1-52  | Delivery Nr. AL                           | ٢٥٥4-59   |             |   | For deliveries EN<br>For deliveries LV<br>Summary CMR EN                 | R  | packing_list_1 (5) - Excel<br>ayout Formulas Data Review View<br>% Ex Conditional Formutting *   | Sign in 00 - C X<br>Developer Help Q Itell me A Share   | AA1214 🕝        | G104 🕜  |
| ALTO project                              | ALTO1-50  | Concrete                                  |   |             |   | Detailed CMR EN<br>Summary CMR LV  |  | fr Packlist Nr. ALTOOI-59  | Cells Editing Share This Webex<br>File * *<br>Webex ^<br>*  | AA1961 🕜        | G122 🗭  |
| ALTO project                              | ALTO1-48  | SENDER<br>CUSTOMER<br>PROJECT<br>STATUS   | ALTO Prefab<br>Construction Swerige<br>ALT004 : Concrete (ALT | O Prefab)   |   | peteries erriter   | 2 Pri<br>3 4 Center  | D E F G Cast concrete elements truction Swerige 41 - ALTO DEMO   | H I J *   | AA1643 🗭        | G137 🕝  |
| ALTO project                              | ALTO1-46  | MANUFACTURED ELEMENTS<br>LENGTH<br>HEIGHT | ~   |             |   | AD AT 05.12.2019 08:00<br>ED AT -  | 7 Ready for loading 28.1<br>8 Loading faile 28.1<br>9 Delivery date: 06.1<br>10 ELEMENTS Law | 2019 15:53<br>2019<br>2:2019 08:00<br>#h Width B Height Quantity Location<br>(pro) (pro) Horsen (pro) wanth  |   | AA10            |   |
| ALTO project                              | ALTO1-45  | WEIGHT<br>CMR NUMBER                      | Detailed CMR EN   Sur   |             |   | MBER CE-145<br>TYPES D   | 12 2 M00-6332<br>13 3 M60-6323<br>14 4 M60-6321<br>15 16                                     | 555         1290         290         1           555         1290         290         1           180         290         1         1           190         290         1         1           180         290         1         1           190         290         1         1           187         1290         290         1           4         4         1         1 | L2         7.42         2.60         2.42           L7         7.5         2.64         2.64           L7         2.6         0.75         0.75           L7         2.64         0.75         0.75 | AA17            | - New -   |
| ALTO project                              | ALTO1-43  | SHIPMENT                                  | Detailed CMR LV)<br>P129                                      |             | LOADING COMM<br>COMPL<br>LOADING TRANSPORTATION   | LAINT -<br>TEAM -<br>I KIND -  | 17 D<br>18 SINDER<br>20 21<br>23 Cf declaration non<br>24 25<br>26                           | 200 22.85m*<br>Den CE-545  |   | AA15            |   |
|   |           |   |   | wit         | AN BE TRANSPORTED BY<br>WILL BE TRANSPORTED BY<br>L BE TRANSFERED VIA EXT<br>TRANSPORTATION DIREC<br>LOADING ADD<br>ADING ADDRESS CONTACT | / SHIP -<br>TER<br>CTION Vertical<br>DRESS Maskavas street 250, Riga, LV | 27<br>28<br>29<br>30<br>   |  | 4) () () () () () () () () () () () () ()   |                 | Market Aller<br>Market Aller<br>Marke |

#### ASSEMBLY SALES AND OPTIMISATION



### Assembly

- Plan intuitively, execute precisely and on time
  - ✓ 3D BIM model view
  - ✓ List/calendar view
  - ✓ Multiple product support
  - ✓ Track element life-cycle status
  - ✓ Team availability
  - ✓ Schedule/phase planning
  - Events calendar deliveries, orders, etc.
  - ✓ Upload documentation
  - ✓ Generate To-do workflows
  - ✓ Automatically generate project progress reports
  - ✓ Quality control

| 🔊 Alto ERP 🗤 🖷 🔍 🗅 Projects - 🗮 Inquiries 🗲 Planning - 🎟 Registers - 🖓 Reports - 🐗 Logistics - 🍕 | Claims 🔹 🖺 Purchasing 🔹 🛪 Absences 👻 🗢 Admin 👻   | 🛎 4.0 ALTO 👻 🛧 🕚 🌷         |
|--|--|----------------------------|
| CProjects > CIALTO DEMO >  |  |                            |
| ALT004 : Assembly plan Planning mode • + Move marked elements E                                  | lements 🔻 🚺 Manufacturers installation buffer days 📔 Lock/unlock planned days 🗌 Allow planning in l  | buffer days 🖉 🗲 Deliveries |
| <image/> <complex-block></complex-block>   | S0. week 2010         9         10.12.2019         11.12.2019         12.12.2019           Winday         10.12.2019         Winday         Winday         Winday           Winday         10.12.2019         Winday         Winday         Winday         Winday           Winday         10.12.2019         Winday         Winday         Winday         Winday         Winday         Winday           Winday         10.12.2019         Winday         Winday | 12 MBD-7018                |
|  |  |                            |
|  |  |                            |

ASSEMBLY PROJECT ENGINEERING PRODUCTION DELIVERY

### Quality control

- Register, track, solve and analyze all issues intuitively and with ease
  - ✓ Image and other file format attachments
  - Linking issues with project, product, worker, business unit
  - ✓ Shared responsibility process flow
  - ✓ Centralized communication between departments
  - ✓ Mobile/tablet support
  - Configurable issue analysis template based on business unit process specifics

| Claims                                  |   |   |  |  | ▼ Search   | Export to XL  | S External 🕶                     | Internal 🕶  |
|---|---|---|--|--|--|---|----------------------------------|-------------|
| All 11 Late                             | Late to agree Inform  | mative Open Disputable  |  |  |  |   | nstruction<br>arranty<br>es      |             |
| Number                                  | Project   | Received from<br>(person)   | Received from<br>(company)   | Responsible for resolving  | Kind   | at  | fety<br>ed by client<br>ormative | Status 🖽    |
| 2019/9<br>Resolved                      | ALT004 ALTO DEMO  | Smith William   | ALTO Prefab  | Doe John   | Construction   | 28.11.2019  | 00.12.2019                       | Agreed      |
| 2019/8                                  | ALT004 ALTO DEMO  | Alister Hugo  | Construction Swerige   | Dean Michael   | Warranty   | 27.11.2019  | 04.12.2019                       | Received    |
| 2019/7                                  | ALT004 ALTO DEMO  | Michaels John   | ALTO 4.0   | Fox Rick   | Construction   | 25.11.2019  | 29.11.2019                       | Received    |
| 2019/6<br>Resolved                      | ALT004 ALTO DEMO  | Alto ERP Allo A Q ⊡Projects * Telinqui<br>PREFAB<br>Claims<br>■ 2019/9  | ries ≯Planning + ■Registers + ᠿReports +   | 網Logistics - 噂Claims ・ 論Purchasing ・ w   |  | ≜4.0 ALTO + ☆ 0<br>Printout 🖊 Edit 🕅 Delete                 | 0.04.2019                        | Agreed      |
| 2019/5<br>Resolved                      | ALT004 ALTO DEMO  | NUMBER 2019/9<br>RETENDUTENUL<br>KIND Construction<br>GUSTORIE Construction Swerige   | MUST BESOLVE IN 06.12.2019<br>HOME 5.0<br>INVOLUTE HOME 1.0<br>MICHINER HOME 0.0   | RESPONSIBLE FOR RESOLVING Doe John<br>DESCRIPTION Precast wall in<br>during the des<br>BRUIDING WAT PLODIL AND Plan 0, 6-5/C-E                         | cast details ( WELDA 100×100) have n<br>igning phase. It is not possible to wel  | ot been placed in the element<br>d the bottom of the angle. | .03.2019                         | Disagreed   |
| 2019/4<br>Resolved                      | ALT004 ALTO DEMO  | POINT ALTODALITO DEMO<br>INCUMVO ROOMWAY ALTO Prefab<br>RECIVED IRON APTISON Smith William<br>SAFETY THE -<br>COMPLANED AT 28.11.2019 | ношкU илте<br>LABOUR CONTS<br>CONSTRUCTION CONTS<br>MATERIAL CONTS<br>ADDITION/L.MATERIAL CONTS<br>No  | CAUSE Insert not incl<br>CORRECTIVE ACTIONS Drill a hole at<br>specified dista<br>NECESSARY RESOLUCES Human hours<br>PREVENTIVE MEASURES Carry out mor | uded in drawing WELDA 100x100,<br>an angle and screw in the angle with t<br>nces.<br>will be calculated after corrective acti<br>e careful insertion and quality control | ons are made.   | .03.2019                         | Agreed      |
| 2019/3<br>Resolved                      | ALTO2 Grand Avenue<br>Park                                    | НВОНИТАР  | LOGRIFIC COTF Yes<br>SUBCONTIACTOR COSTS NO<br>ACCIDANT COSTS NO<br>EXAMPLAYS MBV-6001<br>DETALS WELDA100x100-68<br>DETAL CIRCLES -  | NOTES 25.07 7h (MI<br>DRAWNIGS Element drawn   |  |   | .03.2019                         | Agreed      |
| 2019/2<br>Resolved                      | ALTO1 ALTO project  | Department claims Number Company Company departme   | na na seconda de la companya de |  | 4.0 ALTO<br>The complaint was transferred from "<br>department" to "Alto 4.0", "Engineers  |   | .03.2C                           | Area Barran |
| 2019/1<br>/demo.alto40.com/complaints/n | ALTO1 ALTO project<br>ew?internal=false&kkind=filed_by_client | 2019/2/PM ALTO Prefab Manufacturing<br>2019/2/PN ALTO 4.0 Engineering   | 25 Agreed (4.<br>75 Agreed (4.   | 0 ALTO) Actions -  | 4.0 ALTO<br>Claim transfered from company ALTO<br>to company ALTO Prefab, structure M<br>The complaint was transferred from "<br>department" to "Alto 4.0", "Engineers"  | anufacturing.<br>Alto Prefab", "Manufacturing               | 7.03.20                          | 402         |
|   |   | Attachments<br>ATTACHARMS MB_model.jpg<br>MB_photo.jpg  | Prevetion proof  | 8  | 4.0 ALTO<br>Problem solved.<br>4.0 ALTO  | 02.12.2019 13:20  |                                  |             |



#### sales and optimisation Project engineering Production Delivery Resembly Service



## **Project Management**

- Multi-structure support
- Oversee:
  - ✓ Project progress
  - ✓ Main information about each project and sub-project
- Save time on report generation
  - ✓ Automatic project progress reporting
- See all the planned deliveries, orders and tasks
  - ✓ Project events calendar
- Handle project
   documentation
- Plan business trips

| Alto ERP Alto   | # Q D • 🗎 🗲 = 🔳 •            | @ - @ - ♥ - Ⅰ  | ¥- 4- ¢-  |   |   | ▲ - ☆ 0                        |
|---|------------------------------|--|---|---|---|--------------------------------|
| 🗅 Projects  |                              |  |   | + New project   | Project manufacturing priorit   | es <b>Y</b> Search             |
| Active 13 All   |                              |  |   |   |   |                                |
| Agreement No.   | Name                         | Project country  | Project city  | Client  | Project period  | Priority 🔲                     |
| ALTO9   | Trinlun Vexa                 | 💶 Denmark  | Copenhaged  | DE Trans  | Not specified   | F                              |
| ALTO2   | Grand Avenue Car Park        | 🚺 France   | Toulouse  | Construction France   | 01.03.2019 - 01.03.2020   | А                              |
| ALTO1   | ALTO project                 | 📕 Germany  | Berlin  | Deutsche build  | 01.11.2018 - 30.06.2019   | А                              |
| ALT008  | ACROPOLIS                    | 🚺 Belgium  | Brussel   | Construction France   | Not specified   | E                              |
| ALT007  | Warehouse Teestum            | France   | Paris   | Construction France   | Not specified   | D                              |
| ALT006  | Fella Brixa                  | 📥 Lithuania  | Vilnius   | MCC International   | Not specified   | В                              |
| ALT006  | Fella Brixa                  | 📥 Lithuania  | Vilnius   | MCC International   | Not specified   | В                              |
| ALT005  | Fella Exa                    | 🗖 Latvia   | Alto ERP AN Q CH<br>Desi/AS<br>Defroyeds<br>ALTO DEMO (ALT004   | Yrojects • ₩inquiries ≠Planning • ■Registers • @Reports • #Lu   | ghtics •  | ▲ 4.0 /<br>NDly details (4546) |
| ALT004  | ALTO DEMO                    | Sweden   |   | COMPARY ALTO 4.0<br>EXAMPARY FUTURE ALTO DEMO   | CONCERNATION LOGISTICS days 1/0 days<br>Maturity days 2 days  |                                |
| ALT003  | Liepaja Tennis Hall          | 🗖 Latvia   | Contact persons rec<br>Project participants   | generative     set and a set a set and a set a se | BUILDING OVER AUGUST<br>BUILDING OVER AUGUST<br>RELATED PARTIES ALTO Prefab, ALTO Steel<br>ACOMPANY, ACOMPLEX |                                |
| Alto ERP AND A Q D + + + +     Alto ERP AND A Q D + + + +     CProjess CALTO DEMO      Ovisualization     Torne_I_Surte.ifc | EE - Q - M - ¶ - B - X - Q - | ▲ + ☆ 0<br>XFuthcreen Dement status +  | Stages 9.44<br>Pointes  | Hommonik         BREEMAL         Outstanding           segent memory         0.102,2019 - 61.11.2019           minute Mil         5600           neorasti Mil         900000  |   |                                |
|   |                              | Fibers Unement type Status Unement type Unabledo File Unabledo File Unabledo File Unabledo File File File File File File File File | Teens stor<br>Daily reports<br>Logistics costs<br>Documenta<br>Bodget constructions y<br>Bodget constructions y | Vietness         No           Vietness         Approxed           Vietness         Designed   | ebruary 2019. Offering 25<br>will be the last of two  | Assembled                      |
|   |                              | Attives001<br>Planned manufacture date<br>19.11.2019<br>Planned assembly date<br>25.11.2019  | Visualization<br>Work safety<br>Agreements  | 401/42 405/66   | ев 31<br>291/евс 26/евс   | 2017-06                        |



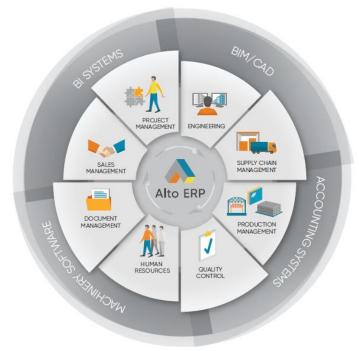
ALTO ERP is a full-cycle BIM/CAD integrated ERP system for developed for construction industry. With tailored versions for project-based prefab, façade and steel manufacturers, and general contractors, Alto ERP is designed to improve business performance through streamlined business process execution, effective information exchange and fact-based decision making

• AGILITY • CLARITY • FOCUS ON VALUE

Any tool is only as good as your teams ability to use it.

What good is a cross-industry "one-size-fits-all" system with countless functions if you only find use of a handful?

The industry-specific focus, integration and modularisation possibilities of Alto ERP allows your company to be agile, and gives your team the tool it needs to oversee all relevant business processes and to focus only on adding value.



#### DOCUMENT, ANALYSE AND IMPROVE YOUR SALES

Keep track of deals, compile quotes, analyse and learn from your past to improve your future sales.



Virtual warehouse enables you to check necessary and available stock, generate purchase orders and track their status with ease.



Changes in production plan? Ensure the optimal use of production capacity at all times without a headache using an automatic production planner.



MANAGE FINISHED ELEMENTS EFFECTIVELY

Store, track and distribute elements on an as-needed basis, and find the best way to fulfil each order with a few clicks.

REDEFINE THE EASE OF LOGISTICS



oillin

Oversee, track and analyse all deliveries, automatically generate transportation documents and decrease costs through better transport utilisation.



Use the 3D BIM model view to plan element assembly intuitively and correctly.



With Alto ERP you can detect, trace the origin of and resolve any problem in a timely manner.

#### SEAMLESS BUSINESS UNIT CONNECTIVITY



Complete progress status info for all business units.



REAL TIME ANALYTICS

Full info for operational and strategic decision making.

#### UP TO 20% REDUCTION OF MANUAL WORK



Manual work on data transfers through production/engineering/ERP system integration.



EFFECTIVE COMMUNICATION AND PROGRESS MONITORING

Through supplier and client integration.





# Tekla Structures plugins Smart factory/retrofit

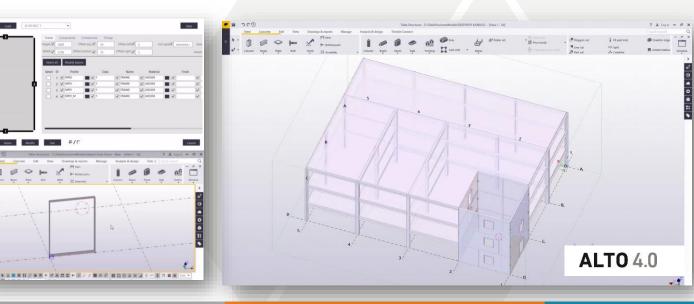
# Tekla plugins

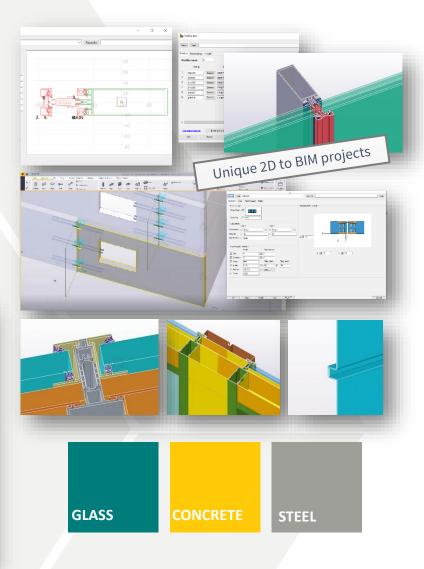
# Developed for steel, concrete and glazed structures

Achieve:

✓ improved engineer efficiency through parametric modelling

- ✓ Material optimization
   Design with ease:
- ✓ More complex solutions
- $\checkmark$  As prefabricated as possible







# Smart facotry/retrofit

#### Equip machinery/production lines with communication capabilities.

- ✓ Factory/manufacturing big data analysis and reporting in Alto ERP.
- ✓ Barcode and QR code implementation in production line.
- ✓ Advanced aluminum profile procurement optimization and cutting list.
- ✓ Advanced sheet optimization for various production.
- ✓ Trimble Connect in manufacturing









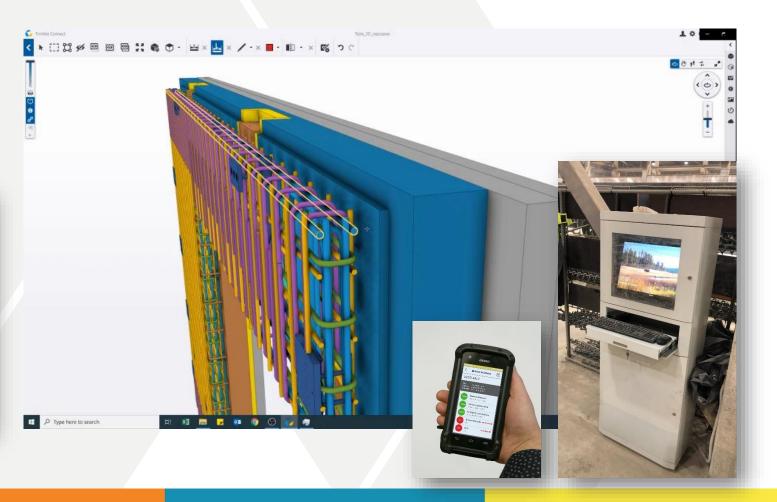


# Smart facotry/retrofit



- ✓ Trimble Connect in manufacturing
  - ✓ Tablets
  - ✓ Work stations
- ✓ QR & BAR code scanners







### Smart facotry/retrofit



 Engineers draw a mesh using the Tekla Structures.

MEP

Attender G

- 2. Information produced in Tekla Structures is uploaded to the Alto ERP system and files for the wiring equipment are prepared. Alto ERP is also used for planning work.
- 3. Folding and straightening machines receive files from Alto ERP and produce wire bars.

4. A factory unit employee arranges the bars in the right order, according to the instructions seen on the screen above the work table. With the help of a video-camera, that films the work process, mistakes during the work are immediately pointed out. 5. Work table with the assembled wire mesh goes into the welding machine, where the finished mesh is welded.

























# 

STEEL

GLASS

Advancing Leaders Through Optimisation

# www.altoerp.com

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