

## Tag and Track

Tag and Track provides the ability to track key elements or components through all stages of its lifetime, from manufacture and fabrication, through transportation into commissioning, handover and maintenance.

The process works by the equipment manufacturer attaching scannable tags/barcodes to physical assets and by using cloud-based software these assets and any of their attributes can facilitate real-time monitoring of the manufacturing process, delivery to site, storage and installation, both physically and historically, from any location.



To date the use of tag/track in construction has been restricted by cost of hardware & limited supply chain integration. However, its use in combination with 4D-BIM can allow progress on projects to be monitored against plan, enabling efficiency improvements.

The workflow is based around intelligent object delivered to the project using BIM authoring tools. The application being utilised (usually Revit) has specified parameters associated to each element that wants to be tracked. To ensure an element can be tracked an individual asset number needs

to be assigned to the element. This can be driven from the component/element schedules.

Additional parameters may be added if planned dates need to be monitored for the elements, this can be populated via integrated software technology to the modelling platform.

Once the information is audited and meets the conditions for the project tracking requirements the models are migrated with the intelligent elements from the design authoring platform into the Cloud platform (BIM 360 Coordinate typically), it is here that we group the tracked elements ready to link barcodes and any additional parameter information.

From the Cloud platform the elements are pushed through to a Field application (BIM 360 Build), the field application is where barcodes are scanned via a tablet application and data is collated from the various stages of the element commissioning and manufacturing process.

At each stage of the process the barcode will be scanned and signed off as a stage complete audit trail. It is this sign off that allows us to track the relevant elements in the project.

Because the elements are being managed in BIM 360 Build, via the BIM 360 Coordinate platform, the model and parameters can then be read in the Navisworks platform, and by using appearance profiler the different statuses of the elements can be utilised and the model colour coded to give a graphical representation of the stage.

All the data can then be pushed into a dashboard such as Power BI to also give a graphical representation of potential risks and delays of the elements being tracked.

For more information on our construction services please call 01992 807 444 or email [marketing@excitech.co.uk](mailto:marketing@excitech.co.uk).

## Features and Benefits of Tag and Track

- Track key components through manufacture and fabrication
- Early identification of delays
- Better programming of resources
- More surety around timings for access requirements, permits etc.
- Greater planning visibility
- More security around high value elements
- Exact delivery locations
- Realtime assets tracking from Production through to Commissioning and Installation
- Reduced administration
- Monitor actual vs planned timelines