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Citation: Gledson, Barry, Greenwood, David and Thurairajah, Niraj (2020) Various definitions provided for use in OUP Dictionary of Building Construction, Surveying and Civil Engineering 2nd Edition (i.e GLEDSON proposed 35 definitions). In: A dictionary of construction, surveying, and civil engineering. Oxford University Press, Oxford. ISBN 9780198832485, 9780191871061, 9780192568632

Published by: Oxford University Press

URL: <https://global.oup.com/academic/product/a-dictiona...>
<<https://global.oup.com/academic/product/a-dictionary-of-construction-surveying-and-civil-engineering-9780198832485?cc=gb&lang=en&#>>

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Suggested definitions for the OUP Dictionary of Building Construction, Surveying and Civil Engineering 2nd Edition.

4D the addition of time to the three dimensions of space (i.e. length, width and height), to create 4-dimensional spacetime. Associated with **4D BIM**.

4D BIM a construction planning and scheduling innovation where the dimension of time is linked to a 3D-model ($x + y + z + t$).

Adaptations frequently used term associated with alteration of scaffolding allowing different trades access to work areas.

Ancillary supplementary support. Resources, tools etc.

Bar Chart simple planning and control tool to communicate: individual activity names and durations; overall timescales of projects and of discrete project phases; an indication of construction sequence. They do not effectively communicate: complex logical relationships or dependencies between activities; responsibility for undertaking work, and; the actual method of undertaking work

BIM Platforms vs BIM Tools. Platforms are applications, such as Autodesk Revit or Navisworks that generate and host data so that the primary data models are hosted on these platforms. In contrast, tools are the task specific functions that produce specific outcomes. Hence, most BIM platforms have incorporated tool functionalities such as object production or clash detection.

BWIC 'builders work in connection' variously involves the necessary cutting, chasing, forming of openings, and resealing/making good elements as necessary to facilitate the work of specialist trades such as mechanical and electrical services.

Concurrent parallel activities occurring at the same time.

Constraint, a restriction or a limitation e.g. of a physical or technological nature. Projects are often either time-constrained or resource-constrained.

Crash time is the fastest period in which an operation can technically be performed, achieved by increasing resources. Such reduction in time leads to increases in direct costs or the **crash cost** i.e. the cost of undertaking the tasks within the crash time (Trauner, et al, 2009).

Dependencies the technical or spacial relationships between individual activities in a logic linked project network. There are four main types of dependencies – 'Finish to start', 'Start to Start', 'Finish to Finish', and the rarely used 'Start to Finish'. All dependencies can also include **Lag**. Dependencies require specific considerations (i.e. of **predecessor** and **successor** activities) when undertaking critical path calculations.

Design Managers oversee integrative efforts in project-related design activity to deliver value and contribute toward successful project delivery. It involves focused management of people, processes and resources to achieve effective flow and production of design information.

Enabling Works are preparatory operations prior to main construction commencement.

GUID acronym meaning 'Globally Unique Identifier'. A unique 128-bit alphanumeric identifying reference that is automatically assigned to everything (i.e. object, space etc) created in a BIM. Useful for tracking purposes.

Innovation use of something that was previously unfamiliar to a person or company, which could enable product, process or system improvements. Often confused with invention, which is instead the result of creating something new.

Innovation diffusion associated with the spread and take-up of innovations.

Interoperable / Interoperability ability of systems to exchange information and productively work together.

ITT, acronym for invitation to tender, i.e. a call for bids.

Lag is the amount of delay time added between predecessor and successor tasks.

Lean construction is the adaption of process improvement principles of the Toyota Production System (TPS) to construction. Involves the triple focus of undertaking continuous process improvements to optimise flow, and reduce waste, to ultimately increasing value to customers.

Lessons learned are experiences captured and distilled from prior projects then used to inform practices on future projects.

Line of balance is a linear scheduling method used to achieve continuous resource deployment on projects involving repetitive activities such as house- or apartment- building.

Planning fallacy occurs when predictions about the amount of time needed to complete a future task is underestimated, despite having more realistic task duration data available.

Portfolio Management a collection of projects and programmes that are managed as a group to achieve strategic objectives (see P3M).

Predecessor activities occur before successor activities and need to be completed or partially completed to allow successor activities to begin.

P3M is shorthand for project-, programme-, and portfolio-management practices.

Reschedule operation used in computer aided planning and scheduling software to update a programme file. Often used in response to entering progress data or employing 'what-if' scenario planning and will impact existing critical path calculations.

Resource allocation involves identifying and distributing those consumable or re-usable resources needed to perform work.

Resource aggregation collating all resources required at daily, weekly or monthly intervals, usually presented in a histogram to illustrate resources fluctuations over time.

RFID, Radio-frequency identification technology used to track tagged objects or materials.

Successor activities follow-on from predecessor activities.

Target Bar, alternative name for a task baseline bars in a construction programme file.

Task cruciality, a measure of how likely it is that 'task x' will influence project outcome. Used in some quantitative risk analysis techniques relation in relation to (the better known) task criticality.

Time Horizon, a period in which short- or long- term construction planning efforts are focused.

Trialability, the opportunity to experiment with, and use an innovation without commitment.