

1,299 Views

18 CrossRef citations to date

0 Altmetric

Articles

Takt Time Grouping: implementing kanban-flow manufacturing in an unbalanced, high variation cycle-time process with moving constraints

Mitchell A. Millstein & Joseph S. Martinich

Pages 6863-6877 | Received 15 May 2013, Accepted 22 Mar 2014, Published online: 22 Apr 2014

Cite this article <https://doi.org/10.1080/00207543.2014.910621>

Check for updates

Sample our
Economics, Finance,
Business & Industry Journals

>> [Sign in here](#) to start your access to the latest two volumes for 14 days

Full Article

Figures & data

References

Citations

Metrics

Reprints & Permissions

Read this article

We Care About Your Privacy

We and our 842 partners store and/or access information on a device, such as unique IDs in cookies to process personal data. You may accept or manage your choices by clicking below, including your right to object where legitimate interest is used, or at any time in the privacy policy page. These choices will be signaled to our partners and will not affect browsing data. [Privacy Policy](#)

We and our partners process data to provide:

Use precise geolocation data. Actively scan device characteristics for identification. Store and/or access information on a device. Personalised advertising and content, advertising and content measurement, audience research and services development.

List of Partners (vendors)

I Accept

Essential Only

Show Purpose



DBR do not provide good results. TTG combines one-piece flow manufacturing, transfer-batch sizing and DBR concepts through the use of a constraints-based transfer-batch sizing formula. Using a discrete event simulation model, it is shown that TTG increases throughput rate as compared to one-piece flow, CONWIP and DBR approaches, with much lower WIP inventory and faster flowtime than CONWIP and DBR.

Keywords: flow manufacturing kanban theory of constraints drum-buffer-rope cycle time variation mixed model transfer-batch sizing CONWIP

Related research

People also read

Recommended articles

Cited by
18

[Variable takt time groups and workload equilibrium >](#)

Tobias Mönch et al.
International Journal of Production Research
Published online: 30 Dec 2020

[Variable takt times in mixed-model assembly line balancing with random customisation >](#)

Tobias Mönch et al.
International Journal of Production Research
Published online: 30 Dec 2020

[Applicability of the theory of constraints in a production environment](#)

Dinesh
Producti
Publ



Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Keep up to date

Register to receive personalised research and resources by email

 Sign me up



✕