



# NAC Executive Insights

## Project Administration – A Glimpse at the Future with Advancing Technology

### Key Points

- Traditional project administration activities are outlined.
- Impacts of technology on these activities are described.
- Acceleration of the benefits provided with technology use is encouraged.

### Introduction

This Executive Insight looks at the traditional responsibilities assigned to project administration and how emerging technologies may change or even eliminate many of the activities currently performed. The first section segregates responsibilities between a home office function and a site-based function. This construct is arbitrary and, on large complex projects, many if not all of the home office functions move to the project office, which in some instances may be based at the site.

### Traditional Project Administration Responsibilities

The traditional responsibilities of project administration are enumerated below. Different organizations and project teams may organize certain responsibilities differently, including which ones are to be site-based. The following section discusses how these activities may change in light of emerging technologies.

Today, project administration responsibilities include:

- **Project administration (office)**
  - Procedures – administrative; document management; authorized signature list; delegations of authority; travel approvals; expense reports
  - Communications
    - Processes, systems, coding/numbering, forms, templates, required documentation, required distribution, logs
    - Communication workflow management – contract required communication; external communications, including requests for information (RFI) (to and from) – clients, subcontractors,

- supplies, regulatory and administrative agencies, stakeholders; meeting minutes and notes; telephone conversation records and confirmations; project team communications (internal); e-mail (internal and external); faxes; trip reports; job bulletins (disseminate project specific information – additions/changes to the project execution plan or project procedures manual; administrative matters); required notices; audio and video project records (recorded audio and video calls); protected (attorney privileged) communication; documents subject to intellectual property (IP) or security protocols
    - Administration of project collaboration system (coordination with information manager)
    - Consistency of corporate and/or project branding
    - Project orientation and training calendar and records
- Subcontractor/sub-consultant management, including securing necessary approvals for subs to work on the job, contract formation, approval of personnel and rates
- Coordination with accounting
- Coordination with legal related to critical decisions pertaining to the prime contract and baseline; changes related to scope, schedule, compensation, or terms and conditions (change control log)
- Insurance and bond certificates and tracking
- Personnel listing and project network directories with approved privileges; contact information; personnel authorization requests
- Project files – project and discipline filing systems with required levels of security; maintenance per records retention policy. Files include correspondence; engineering deliverables; project estimates, schedules; purchase orders and contracts; construction related documents; and safety related documents
- Drawing and document matrix and distribution and form of distribution (electronic or hard copy); tracking of contract deliverables
- Progress reports (assemble inputs; prepare dashboards and required client reports for review)
- Action item lists and status
- Project administrative management – meeting coordination and scheduling
- Overall administrative setup – home office, workshare, joint venture, module yard(s), site(s)
- Records closeout and retention at project completion
- Closeout of administrative tasks, services, facilities and equipment
- Develop project history and issue at closeout

- **Administrative manager (site)**
  - Office services
  - Accounting
  - Payroll
  - Warehousing
  - Local purchasing
  - Personnel

## Future Directions in Project Administration

The increased use of AI (artificial intelligence) and other technologies will probably and significantly change project administration in the future. Some key aspects that are likely to change include:

- **Communication workflow management** – meeting minutes and notes as well as audio and video recordings of meetings and calls will take advantage of transcripts prepared using voice recognition.
- **Change control** – change requests will be more rigorously managed through project workflow processes, which will be completely automated. Change documentation will be checked against contract, project execution plan, and project management procedures for accuracy and compliance. Required precedent sign-offs will be confirmed against established approval authorities. Value-adding actions enabled in the future will include incremental risk assessment as a result of the change. This will include comparison against other similar changes as well as assessing the risk of project disruption. Blockchain technology will be utilized through client or vendor approval, including input to billing or accounts payable once authorized.
- **Document tracking** – AI-enabled document analytics can identify new documents received; ascertain whether they are a contract or vendor deliverable; classify and code the document for future tracking and use; prepare a summary or abstract of the document; and assign it to a particular work process either underway or initiate a new one. For project initiated documents, checking against standards for such documents (required content and form), compliance items, and contract requirements can be performed. Document quality can be tested against training data and suggestions for improvement offered prior to transmittal.
- **Progress reports** – timeliness and quality of progress reports will be enhanced through automated extraction of desired data and incorporation in processed form in client required reports and project dashboards. AI-enabled project health assessments can be contrasted with project team forecasts. Narratives and analysis by key managers will be further informed by automated compilation of relevant project documents, including correspondence, that speak to sources of variance. Additional narrative support will come from auto-generated textual insights from data.<sup>1</sup> Abstracting tools will prepare focused executive summaries. Increasingly, progress reports will shift from formal periodic submissions to real time interactive project intelligence and insight.

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<sup>1</sup> PowerBI® or Tableau® adapt their insights in real time through applied filters.

- **Action item list** – virtual assistants will participate in meetings, capturing actions and providing a summary at the close of the meeting.
- **Project administration** – virtual assistants schedule meetings; reserve appropriately sized and equipped meeting rooms; and send calendar invites, including required remote links. Automated work processes and voice recognition technology prepare transcripts and extract action items. Meeting effectiveness can be assessed by the quality of action items generated or decisions made for the time invested in meetings. Action items linked to key performance indicators (KPIs) can be flagged and the quality of the meeting based on its contribution to the achievement of the KPIs assessed retrospectively. Action item responses can be assessed for both completeness and quality flagging where intervention may be required.
- **Project history** – can be automatically generated by assessing importance of key meetings, decisions, milestones, and deliverables. Links to related documents or other knowledge objects can be automatically generated. At a future point, this project history will be linked to a digital twin of the facility, providing a richer information base for the operating and maintenance period. Evolution of variance from the original baseline can be tracked, aiding in project lessons learned assessments.
- **Warehousing** – requirements will be reduced and automated through automated material tracking (RFID) linked to smart supply chain control towers, automating major elements of not only the supply chain, but also warehouse and materials management.

## Summary

Technology, especially AI, will impact all elements of project delivery. Opportunities to accelerate the benefits of these technologies exist both at the workplace as well as in the supporting activities that enable project execution. This Executive Insight highlights some future directions in project administration.

## About the Author

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