



# Preparation of as-built programmes: 10 top tips

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**A** robust and well constructed as-built programme (ABP) is a vital tool for starting to explain why a project has been delayed and/or disrupted. It can be used to establish by how much a project has been delayed and over what time periods. It can also be used to help target research into specific evidence that may start to explain the reasons why the ABP has developed like it has.

It should be made clear that an ABP, by itself, does not explain why a project was delayed or changed from the as-planned intent. It is merely a factual record of what happened such that periods of overrun may be identified and whilst various hypotheses can be developed, based on the timing and sequence of activities, which can target further detailed research. Notwithstanding, if the as-built is not accurate and verifiable, the quality of research that will follow or the assessment of overruns will likewise be of little use.

It is therefore necessary to ensure that if preparing an ABP sufficient time is spent to ensure as accurate a programme is produced that contemporaneous records will allow. Here's 10 points to consider when preparing an ABP:

## 1. It should be based on contemporaneous project data

An ABP should demonstrate what actually happened on site. Consequently it should be based on actual project records. These can come from a variety of sources such as those identified in point number two below. Always keep a copy of the information that has been used to prepare your ABP and highlight and record the specific dates that have been abstracted. If you are required to justify the information you will have a file of data to hand.

## 2. Review all possible sources of contemporaneous records

It is beneficial to establish all the sources of contemporaneous data available for the production of the as built. Review and schedule all the different types of records, such as:

- Allocation sheets.
- Meeting minutes.
- Progress reports.
- Valuation data (but see point number three).
- Installation records.
- Subcontractor reports.
- Progress photographs.

This identifies what records are available, their completeness and allows you to establish which records can be used to cross check or research particular issues. Knowing what records you have available is fundamental to appreciating the level of detail you are likely to achieve with your ABP as well as identifying where information can be found.

## 3. Cross check the sources of data to corroborate information

Too often ABPs are based on one source of information. Typically valuation figures (e.g. 60% of groundworks complete on date of valuation). Experience has typically found that valuation records alone are not accurate enough to measure progress. The quantity of work stated is often subjective and not based on progress measurements. The figures can be overstated as their primary purpose is to obtain payment rather than record progress of the works. Always cross check progress records used against another form of data so that your data stands up to scrutiny. Dated progress photographs are an excellent form of cross checking material.

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## 4. Be careful with verbal information

Following from above, if basing activity start and finish dates on the recollections of site staff, be very careful and treat such information with extreme caution. Keep a detailed note of who stated what and when and try and cross check their information against factual data, such as progress photographs. Too often we try to make our recollections fit our preferred story as opposed to what actually happened. An ABP is a factual record, so make sure the facts stand up to objective scrutiny and are verifiable against contemporaneous records.

## 5. Try and relate information to the as-planned activities

When reviewing records try and relate as-built dates back to the as-planned activity. This gives you an initial framework to base the ABP on and allows you to compare the planned durations with the as-built. You may wish to go into greater levels of detail to research specific areas of the works but try to follow the as-planned structure as far as possible, deviating only where necessary, for example to identify where a new scope of work may have been introduced by way of a variation.

**6. Start with the general and work to the detail**

If constructing an ABP, approach the process like a forensic detective, trying to piece things together. However in order not to be overburdened by data, start with trying to establish key milestone dates on the principal activities; generally those which are based on the as-planned activities. Once you have developed a framework for your programme, you can then start to analyse particular activities or time periods to provide further detail.

**7. Try to show breaks in activities**

Be aware that a continuous solid bar between the start and end dates may mask the true story behind an activity. The progress of work may not have been a constant flow from start date to finish date. Try, if possible, to show when breaks in activity durations occurred. The quality and extent of project data will dictate to what extent breaks can be shown, but if there were reasonable periods where no work was being carried out on, try to show these.

**8. Consider the true meaning of dates**

Take time to consider what a date actually represents. If you have a bar which is continuous for three months and then there is a period of say six months with no activity and then a further period of two days at the end, consider what this is telling you and how you should show this information. The two days at the end of the bar may be the result of a number of issues which either may or may not be factually correct. Such matters need careful consideration to ensure you are accurately reporting the duration of an as-built activity.

**9. Internally critique the programme**

The production of an ABP will have an element of subjectivity. You will be required to interpret information and allocate against particular activities. It may not always be easy to do this. In order to verify your interpretation, run the programme

past the site team to see if the detail of the ABP stack up against the recollections of those who were on site at the time. This can ensure that your details ties up with the 'big picture' or may provide areas where your draft of the ABP has fundamental flaws. It is important to maintain an independent and objective stance when preparing and reviewing an ABP and it is sensible to consider how you will achieve this.

**10. Don't worry about logic at this stage**

At this stage, the purpose of the ABP is to develop an accurate factual record of dates. Do not let the focus get obscured by trying to establish the logic of activities or looking for a critical path. That can come later once the ABP is complete. Developing the ABP is the first stage of any delay analysis so treat the process as such and don't get distracted with detail and analysis at this early stage.

If you adopt the above general principles this should help to ensure that the as-built you produce will be as accurate as possible based on the information available. Once you have produced your ABP you can then take your analysis to the next stages by looking at which activities have been delayed and by how much, researching what has caused the delays to activities, establishing the critical path and so on. However, the key is to get the factual ABP right initially or all subsequent analysis may be rendered useless.

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