

Managing the Transition from Programmer to Manager

Mark Crangle, ICON plc, Reading, UK

ABSTRACT

If and when the time comes for a programmer to consider moving into management, the decision can be a daunting one. On the face of it, line management responsibilities could seem alien to someone with a scientific background who is well used to applying logic and algorithms to solve problems. While some of the skills developed as a programmer will still be useful, the new manager will need to be able to step back from the day-to-day decisions on a project, and an array of new soft skills will be needed in order to successfully manage, motivate and develop others.

This paper will draw on personal experience and examples from other industries to explore ideas and tips to prepare for a move into management, to handle the period where old and new responsibilities may overlap, and to continue to develop into a successful manager.

INTRODUCTION

A move into management could come about as part of a progression within the same company, built towards for several months and years and then applying for an internal promotion, or it could happen by being offered a role at another company. Despite those different paths, there are many considerations prior to moving to a management role and challenges once the programmer is in that new role that are common to both.

This paper follows the story of a programmer that has had a 12 year progression from graduate SAS programmer to manager within the same company so will focus on the associated challenges and experiences, and is aimed at programmers considering making the same move and to senior managers who will be managing team members through this transition.

MAKING THE DECISION TO PURSUE A MANAGEMENT ROLE

The decision to move away from a hand-on SAS programming role into a management role is likely to come at a time when the programmer has been successful in that role, so a conscious decision needs to be made to move your career towards a management position. This could have been a decision made early in a career, or one that is only made after several years as a SAS programmer.

In the author's experience, the motivation for this decision fell into several main categories.

WANTING A NEW CHALLENGE

At some point in the career of a SAS programmer, it is likely that a degree of boredom will set in. The role of a SAS programmer can be repetitive and while the studies they will have worked on can have a degree of variety to it, there may be a time when the programmer feels that they have achieved all they can in that role. Working in this role, success will almost certainly be defined as delivering a study on time and on budget but once this success is achieved they will often be straight onto the next study so eventually that desire for success may lose some of its motivational power.

While a manager still has that same goal of delivering studies, there are other measures of success that have the potential to motivate.

INFLUENCING MORE STUDIES

The goal of anyone working in this industry is to help in our own way to provide new medications to improve patients' lives. As a SAS programmer, you will likely only have the opportunity to work on a small number of studies at one time but as a manager overseeing multiple projects you will influence many more studies simultaneously. While that influence is certainly less hands-on than it would have been as a programmer working on those studies, a manager can maximise the experience gained over a career over a larger range of studies

DEVELOPING OTHERS

In common with many technical roles, a SAS programmer is likely to have prior exposure to mentoring others as an introduction to management. This could come in a formal role, onboarding new staff or providing training to a wider group, or could be more informal through relationships developed with junior team members. The role of lead programmer also has a degree of mentoring, with decisions made on assigning work taking into account programmers experience and, where timelines permit, the willingness of programmers to work on new analysis or programming challenges.

Through this exposure the programmer will know if they enjoy this aspect of the job, and whether they want to have more opportunities to develop new staff.

DEVELOPING NEW PROCESSES OR TECHNOLOGIES

The work of a SAS programmer, particularly in a CRO, can be hyper-focused on delivering studies to the exclusion of spending any time on items like process improvement or the development of new systems or tools. By stepping away from the day-to-day activity of programming or leading studies, a manager may have more time to work on these items, extending their influence on more studies as mentioned above and (hopefully) improving the efficiency of the SAS programming teams working on studies.

MAXIMISING EARNING POTENTIAL

While many will assert that the above are the only reasons for pursuing a management role, if they are honest then the pay scale and the desire to earn more money is also a key factor.

PRIOR TO BECOMING A MANAGER

The journey to transitioning from programmer to manager starts before even applying for a manager position as there are various actions the programmer can take to start to prepare and develop their skills.

WORK WITH YOUR CURRENT MANAGER

An important step once the programmer has made the decision that they want to pursue a manager role is to inform their current manager of the path they would like to take. A good manager will be able to support in this journey by providing mentoring, first discussing the role of a manager with the programmer to allow them to confirm that they are interested in the role, and then helping the programmer to understand what skills they will need to develop.

It may also be possible for the programmer to be given some management responsibilities while still in their old role which would provide valuable experience. This could take the form of giving the programmer some responsibility for budgets or resourcing across a study or group of studies, or allowing them to become involved in process improvement outside of study work.

Even if these opportunities are given, it is still up to the programmer to embrace these and maximise the amount that they can learn. It is likely that these opportunities for extra responsibilities are likely to be in addition to the day-to-day work they have been performing as a programmer so they may need to work additional hours to maximise these possibilities. Doing so should not be seen as a negative as it will help to demonstrate to senior managers that the programmer is suitable for a management role.

RE-FRAMING PROGRAMMING EXPERIENCE

Through discussion of the manager role with the programmer's current manager they will start to get an idea of what the role entails, and this will allow them to start seeing the experience they have gained as a programmer through the lens of management. There is much about the role leading studies that the programmer is likely to have already done, that is directly applicable to the management role.

Some of these experiences more obviously apply to management, such as managing difficult situations with timelines, budgets or in the quality of programming deliverables. Through a long career, the programmer is likely to have encountered many such situations and can reflect on the actions they took to manage the issues to a (hopefully) successful resolution. Although as a manager they would have a less hands-on role in managing and resolving the situation, knowledge of how to handle similar situations in the future will allow the new manager to direct their teams to the same conclusion.

A key skill in management learnt through leading programming teams is the ability to communicate the expectations around a task and monitoring its completion. This could be providing step-by-step instructions on how a task should be approached or directing programmers to come up with their own approach to the task. The way the lead programmer chooses to do this depends on the task and the time available but empowering team members to make their own decisions and then providing guidance is a successful way to manage people and something the programmer will want to master as they move towards becoming a manager.

This reframing of previous experiences will certainly need to be considered prior to entering the interview process for the management role. The interviewers will be able to see from your CV that you do not have "Manager" listed in your job experience so they will want to know what experiences you do have that are applicable, and whether you can think about those experiences as a manager would.

MENTORING

If the programmer is lucky then they will have had the opportunity to act as a mentor, either to onboard new hires or more informally through relationships developed with junior team members. This position allows the programmer to develop some exposure to management tasks, including operating 1-1 meetings, providing training and guidance and

development relationships. Through the mentoring role skills can be learnt in these management tasks without the same responsibilities of management so can be a vital introduction to these aspects of the role.

There is also an element of mentoring to the lead programmer role that the programmer is likely to have performed. Programming teams are made up of senior and junior programmers and the lead needs to be able to bring both sides of the team together to deliver the project successfully.

STUDY AND LEARN ABOUT MANAGEMENT

As a programmer, if you needed to learn a new technical skill such as how to implement a CDISC standard or perform a new type of analysis you would seek out training material or documentation for how to do it. The skills associated with the role of management seem so different to those technical skills that the programmer learnt through their career that the temptation is to assume that they can only be learnt by experience. However, that couldn't be further from the truth. There is a wealth of information that is ready and waiting to be accessed, from training courses through to detailed books on management, covering topics such as interviewing, motivating and developing others, and managing difficult staff members to name just a few.

A particular worthwhile area to explore is the experiences of others that have moved from a technical or programming role into management. Books such as *The Manager's Path: A Guide for Tech Leaders Navigating Growth and Change* by Camille Fournier are particularly applicable to this journey and cover all aspects of a career path from programmer to senior manager.

MANAGING DIFFICULT EMPLOYEES

Another area that merits some further study is how to manage difficult or challenging employees, as this is likely to be something that the programmer has not encountered much before coming to management. Lead programmers may have had some experience with difficult personalities in their programming team and so there may be some experiences to fall back on, but often they would take support from a manager in these situations. Either way, the exposure to these situations is greatly increased as a manager so any additional preparation that the new manager can do would be advantageous.

LEARN FROM GOOD (AND BAD) MANAGERS

Throughout their career, the programmer is likely to have had both good and bad managers, and both scenarios are good opportunities to learn about how those managers created a positive or negative experience. An essential feature of the relationship with your manager would have been the direct 1-1 meetings that you had, so consider whether your managers have managed to make these feel worthwhile, or whether they were ineffective and more of a chore.

There are two main purposes to a 1-1 meeting. Firstly they create a human connection between the employee and the manager and while that shouldn't mean you spend the whole meeting talking about non-work topics, having some space to do so helps to create a positive relationship and makes it easier to discuss when issues outside of work start to have an impact on the employee. Consider whether you have had relationships with your manager where you were comfortable talking about issues outside work and how they manager to create that environment.

Secondly, the 1-1 gives a regular opportunity to discuss your needs privately with your manager, and for your manager to give information and feedback on your current, future and past work. If you had managers that constantly re-scheduled or cancelled 1-1 meetings, or came to 1-1 meetings without topics to discuss then consider how you felt as the employee and use that to guide how you will run these meetings as the employee.

In summary, while it is important to find your own style once you start as a manager, through consideration of your past experience and researching about areas you have not experienced you will start to form a idea of how you will handle a variety of different situations as a manager. Such thought will certainly come across well during the interview process by demonstrating to senior managers that you are serious about the transition to management.

HANDLING OVERLAPPING RESPONSIBILITIES

Once you have achieved your promotion, there is likely to be a period where your responsibilities overlap as you transition away from your old responsibilities and pick up new responsibilities as a manager. This will possibly be the case if you are starting as a manager in a new company but will almost certainly occur if it is an internal promotion to manager.

There is an inherent conflict for the new manager in this position. On the one hand, they are keen to embrace as many of their new responsibilities as possible but still with some of their old responsibilities to complete. Senior managers will also be keen to make the most of the new manager and hand-over some responsibilities, so patience is needed on both sides. The situation is made more challenging by the fact that the new programmer was likely one of the more experienced lead programmers in their old team, so might have more responsibilities on more complex projects than other leads in the team.

The key to accommodating this period is to plan with more senior managers about when the studies will be transitioned and to adjust the adding of new responsibilities to this plan. Therefore, if there is not a convenient point to transition a study for several months after the new manager is in position – possibly due to availability of staff to take over, or because of the study timelines – then plan for the fact that the new manager will still need some time to work on that study and adjust the adding of new work accordingly.

The plan could proceed in 3 ways:

- The new manager will keep oversight of the project (or projects) and hand-over the programming lead activities to another lead in their new team.
This approach has the advantage of continuity, with the new manager keeping some involvement in the study so there is less likely to be a loss of information through the transition process. This approach also presents the opportunity to mentor and coach a less experienced lead who needs additional support from the new manager. The manager will have much more information about the study than they would have on a study they hadn't led, from details about the programming through to relationships with external stakeholders, and this additional information could be invaluable to a less experienced lead coming into the study.
The challenge with this approach is that the new manager may only have a small team, as they dip their toe into the water of people management, so it may take longer to re-assign lead responsibilities to either new or existing team members.
This approach also has advantages for the new manager as they can adapt to an oversight role from a position of having more information about the study. They may also be in the position of having taken some additional management responsibilities from their old manager while they were preparing for promotion to management. If this is the case, then this approach makes a lot of sense.
- The old manager keeps oversight of the study and lead responsibilities are handed over to another lead within their team.
This approach makes sense if the study is part of a large portfolio of studies that would be too big for the new manager to keep oversight of. There is less continuity with this approach, but it may allow for a quicker transition of responsibilities as the old manager is likely to have a larger team.
- The new manager keeps lead responsibilities for the study until the study completes.
Depending on timing, this approach may make the most sense as it would not be worthwhile to assign a new lead close to the time of study completion. Even with this approach, the new manager may find that they are forced to be a less hands-on lead than they would have been previously so some delegation of tasks or handing over of programming assignments may be necessary. Therefore, while a new lead would not be assigned to the study, it may still require additional support programmers to be assigned to take-over some of the new managers programming tasks

Another situation that may occur is where you are leading studies but also responsible for the line management of some of the individual programmers working on that study, particularly if those programmers are more junior or new hires. In some cases, programmers may be reluctant to approach you with questions that they would normally go to a lead programmer if they see you as more their manager and less of the lead programmer. Equally, for the manager, they may not want to be as hands-on with those programmers as they normally would as a lead programmer so as not to be seen as a micro-managing those team members. This situation would need to be handled by clear communication between the programmer and manager, defining the roles and expectations on both parties.

One final situation that may arise during this period is if studies are assigned to the manager for oversight, but then are then left without a suitable lead. This could occur if the lead leaves and no suitable replacement could be found. In these situations the new manager may be tempted, or be left with no option, but to continue as lead for those studies for a period of time. While it is hoped that this period is short, it brings on the same challenges as outlined above where

the manager is still lead programmer on studies, but it is unlikely to have been planned for so has the potential for increasing the new managers workload. It is key in these situations for the manager to be able to delegate effectively, so that they can manage that workload.

DEVELOPING YOUR OWN MANAGEMENT STYLE

As discussed above, the new manager will likely have some experience to draw on and may have studied the principle of people management, but it is still important that they develop their own management style. While they may have some experience of leading programming teams in a lead programmer role there are several aspects of people management that will be new for the manager.

1-1 MEETINGS

1-1 meetings are the regular touch point between managers and their direct reports, and the first thing to consider is the regularity of these meetings. In most cases, the recommendation is to start with weekly meetings and then adjust as needed, and as agreed by the two parties. The advantage of a weekly meeting is that the discussions will be frequent enough as to keep the meetings short and focussed and gives room for the occasional missed meeting. If meetings are scheduled less frequently then that means that any meetings would have to be re-scheduled.

A different consideration for the new manager is if they are the line manager for some of their team, but those team members are also working on the studies that the new manager is still leading. In this case, the manager and report may be communicating regularly on study matters, and that could impact the 1-1 and cause it to be more of a status update on the study rather than a discussion of the needs of the employee. This could mean that a less frequent 1-1 meeting is needed so that it remains just focused on other topics, but in some way a distinction should be made by the manager so that discussion of the study status and issues is limited in the 1-1 meeting.

The second consideration is the style of the 1-1 meeting. This is likely to be influenced by the 1-1 meetings that the manager has previously had in their career, but they should take time to evaluate what has worked well in those meetings (and what hasn't) to define their own style, and also consider the preferred working style of their direct reports. Some will prefer a more organised style of meeting, where both parties come with a to-do list of objectives to cover. In general, meetings of this style are more efficient and forces both parties to think about topics for the meeting in advance but can sometimes appear a little cold and informal. In contrast, 1-1 meetings can be more informal with a more fluid discussion of topics. This meeting style lends itself to allowing the reports to discuss any issue that is facing them but if left unchecked it can turn into a complaining session or therapy, and empathetic managers could spend too much time commiserating with their reports and making the problem worse. For new managers that are sharing programming lead responsibilities as mentioned above, this relaxed style could also result in the 1-1 meeting becoming an extension of study level meetings. The ideal style is probably somewhere between these two extremes, creating the space for a free discussion but with enough structure to keep the discussion focussed.

GIVING FEEDBACK

There is likely to be a formal process for providing feedback to team members through an annual review but the experience the employee will have through that review starts long before the review is written – though providing continuous feedback.

While the continuous feedback is useful to the employee, this also helps the new manager as they will get accustomed to paying attention to individuals and having smaller and occasionally tricky conversations through the year instead of delaying this until the annual review.

There are a few steps that the new manager can take to become better at giving continuous feedback:

- Get to know your people. The first step to getting to know the people that you now have line management responsibility for is to read through their previous performance reviews (if possible) and discuss with their previous manager. Following that, you should schedule a conversation with your new report to understand their perspective on their previous performance and in their goals for the future. Once you know where the person is trying to get to, you can provide feedback and guidance to help them achieve that.
- Observe your people. An advantage of a continuous feedback cycle is that it forces the manager to pay attention on to the individuals on your team and starting this early in the career of the new manager helps to train those observational skills while they may have a smaller team to manage. While you will want to look out for weaknesses and areas for improvement, it pays to make a concerted effort to look more for people strengths and talents, otherwise the feedback cycle will feel more like continuous criticism.
- Provide lightweight, regular feedback. Many people respond better to positive feedback, and this is often easier and more fun to give, so start by trying to encourage better behaviour by reinforcing things they've done well. Positive feedback also makes your reports more likely to respond to critical feedback as they will be more open to hearing about things they might improve if they believe their manager will notice when they do something well.

RE-DEFINING SUCCESS FROM PROGRAMMER TO MANAGER

A difficulty during the transition period from programmer to manager is that you are moving from a role in which you have been very successful into one with many new things to learn. It is likely to have been several years since the new manager has been in the position of having to learn that number of new things as their development will have been more gradual over that period. Suddenly, they may feel they are back to square one and it could feel overwhelming at times.

Additionally, the objective or the measurement of what success is suddenly becomes different as well. For a lead programmer, success is delivering the project on time and on budget and the lead will usually have a very hands-on role to play in ensuring that success. As a manager, although the objective of delivering projects is the same, the involvement the manager has will be through planning, coaching and providing guidance and support in resolving issues, and so the feeling the manager will have from that success will be different.

Further measure of success will be completely new to the new manager, such as line management, and hiring and onboarding of new staff. In defining success here, the new manager will need support of senior management who can lay down their expectations for the new manager and through setting of goals can help the new manager to understand whether they are being successful in the role.

CONCLUSION

While there are many experiences that the programmer will have accumulated over their career that may prepare them for some aspects of management, many aspects of the role are new. By viewing those experiences through the eyes of management, reading and studying management techniques, and recognising the challenges of the period of transition from programmer to management, the programmer can make a success of their new role.

Through the transition period, a plan that gradually exposes the new manager to those challenges while they complete activities related to their new role can help smooth that process. The new manager will also need support from senior management to execute that plan and to help reshape their expectations as they adjust to a situation where they have much to learn.

Moving further ahead, the new manager will continue to be exposed to new challenges thanks to the great variety that management can bring and should remain keen to learn and study management techniques in the same way that they would keep up with new technologies, and industry standards and trends in the old role as a programmer.

REFERENCES

The First-Time Manager by Jim McCormick

The Manager's Path: A Guide for Tech Leaders Navigating Growth and Change by Camille Fournier

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CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the author at:

Mark Crangle

ICON plc

mark.crangle@iconplc.com

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