

5 The three basic process types

INTRODUCTION

We now have in place the concepts and vocabulary for describing individual processes, and for modelling the two sorts of relationship between processes: activation and interaction. In the Introduction we – rather vaguely – observed that there are three types of organisational activity: what I called coal-face, management and strategic activity. In this chapter, we shall look at three types of process and give them more precise names and much more precise meanings:

- ☞ case processes,
- ☞ case management processes,
- ☞ case strategy processes.

Our hypothesis will be that everything that happens in the building is part of a case process, or a case management process, or a case strategy process. We shall use this hypothesis in the next chapter when we look at how to chunk all the activity in the building: how to draw up the process architecture of the organisation.

THE CASE PROCESS

Units of work and cases

Suppose we are looking at the department in a life insurance company that deals with new business, and, in particular, applications for new insurance policies; and suppose we are particularly interested in what happens to an application for a new life insurance policy from the point at which it is received by the company to the point where some outcome is reached with the prospective customer. We can think of the customer application as the *unit of work* for this department: it is the unit in which work arrives and is dealt with, and every application is dealt with in the same, standard way.

If we walked into a software house, we would find them taking on pieces of work for a client – what are typically called ‘projects’. The ‘project’ is the unit of work of the software house. Each piece of work is one *case* of the unit of work ‘project’ that typically starts with the award of the contract and finishes with acceptance of the software by the client. At any one time the software house will have many projects (cases) in progress, all at different stages of some standard project lifecycle.

In a pharmaceutical R&D company, each potential new drug compound has a development lifetime that takes it from the point where it is determined to have some possible therapeutic effects to the point at which it obtains approval from the regulatory authorities to be

5 – THE THREE BASIC PROCESS TYPES

put on sale, or is dropped. Here the unit of work is the 'compound'. During the development of the drug compound, the company carries out clinical trials to determine its efficacy and safety. The 'clinical trial' is also a unit of work, in fact a major work item dealt with by the Clinical Department.

Let's think of some more units of work, and the groups for whom they are units of work:

a house purchase, for a solicitor's office
a purchase order, for a supplies company
a marketing campaign, for the Marketing Department
a production batch, for a factory
a customer complaint, for the Customer Services section
a product line, for a manufacturer
an operation, for a hospital
a patient, for a hospital
a student, for a college
a course module, for the Physics faculty
an exam paper, for a university course
a meeting, for the committee secretary
a blocked drain, for the Maintenance Department
a clinical trial, for a pharmaceutical company
a phone call, for a call centre
a blood donation, for a blood bank
a stock purchase, for a broker
a donation, for a charity
an amendment to a purchase order, for a supplies company
a company, for a conglomerate
a request for new staff, for the HR department
the annual budget, for the Board
a generator, for an electricity supply company
a lease, for a lease owner
a customer, for a services company
a building, for a construction company
a building, for a property company
a project report, for a project manager.

5 – THE THREE BASIC PROCESS TYPES

Take a moment to jot down all the units of work you can think of in your part of the organisation, or even in your home. A child, for the parents? A meal, for the cook? A visit to the supermarket, for the shopper? A journey to the office, for the commuter?

The list above shows how varied units of work can be:

- ☞ Some are solid, physical things with a lifetime that we can easily see: a generator, a building, a patient, a customer. During their lifetime, we shall 'look after' them.
- ☞ Some are less tangible: a purchase order, a customer complaint, a course module. Their lifetime is a little harder to define, but during that lifetime we shall 'deal with' them. (They might have a paper or other physical manifestation, but that is incidental.)
- ☞ Some are rather abstract: a project, a clinical trial, a meeting. They have a duration, rather than a 'lifetime', and begin and end when we say so. We might say that we 'do' them.
- ☞ Some are very abstract: an amendment to a purchase order, a product line.

Units of work and case processes

This sort of situation is common; perhaps we might claim it is the way all organisations work. Work comes in 'cases' or 'episodes', each needing to be dealt with in a standard way (assuming we don't behave randomly when each case arrives). The moment we say 'dealt with in standard way', we have recognised that each case follows the same process. We shall call that process the *case process*. This will be the process that 'looks after', or 'deals with', or 'handles' a case during its 'lifetime'. When a case 'arrives', or 'comes into our area', or 'lands on our desk', however we put it, we start the case process working on it. In fact, given the concepts and vocabulary we developed in Chapter 4, we can now say that we 'activate the case process' for each new case. We might even say that we 'instantiate the case process' for each new case.

So, at any one moment we could look around and see perhaps many instances of the case process in progress: one for each case currently being dealt with. The office supplies company has 1,222 purchase orders 'in hand'. The call centre is currently 'dealing with' 34 calls. The Board is 'working on' *the* annual budget. The pharmaceutical drug company has 15 compounds 'in the pipeline'. The Clinical Department is 'running' 87 clinical trials. In everyday speech we have many ways of saying 'A case process instance is operating.'

Each case will be at a different stage in its case process: for example, in our pharmaceutical research company, compound A might be in 'first in man' trials with human volunteers, compound B might be undergoing major Phase III trials with thousands of clinical patients, and compound C might be awaiting regulatory approval at the end of its development process.

In some situations, cases might come just one at a time: there is only one annual budget each year, and we finish work on one before we start on the next.

Naming case processes

Because the three process patterns will prove to be central to our thinking about processes, it will be useful to be able to distinguish them by the names we give them. This might feel over the top at first, but, as we use the convention more and more, we will find that it helps keep our minds focussed on the case process as opposed to the case management process, or on the case strategy process as opposed to the case management process, and so on.

5 – THE THREE BASIC PROCESS TYPES

To emphasise that we are talking about a case process, we shall always start by naming a case process with the words **Handle a** or **Prepare a**. We use **Handle a** where the unit of work could be seen as the *input* to the case process or the thing that in some way triggers it:

Handle a purchase order

Handle a customer complaint

We use **Prepare a** where the unit of work could be seen as the *output* or the outcome in some way. So, we would have:

Prepare a production batch

Prepare a project report

Where the unit of work is really neither an input or an output, use **Handle a**.

Handle a marketing campaign

Handle a house purchase

Already, these names are emphasising that the process is about *one* thing: *one* purchase order, *one* production batch, *one* marketing campaign. By all means choose a different name later in the analysis: *Run a marketing campaign*, or *Make a production batch*, or *Deal with a customer complaint*, or *Satisfy a customer order*. But try starting with the stilted names before moving to something else. If there is only one case of the unit of work, we replace 'a' by 'the' in the name.

Bounding case processes

So, in *Riva* we name case processes in a way that emphasises the unit of work. Other naming conventions that you might come across emphasise another important aspect, their end-to-end nature: *Order to cash*, *Engage to close*, *Transact to fulfil*, *Build to order*, *Plan to produce*, *Résumé to work*, *Goal to reward*.

Clearly a case process starts when the case 'arrives'. A case 'lands on the desk' and the case process starts. We'll need to be thoughtful about precisely when that happens. In workshop situations – as we shall see later in Chapter 8 – I like to ask the question 'How do I know I've got a case?'

- ☞ At what moment do we know a house purchase has started? Is it when an offer to buy is accepted? Or when the offer is first made? Or when the potential buyer visits the property? Or when the house goes on the market?
- ☞ When does a customer complaint start? When the customer has finished filling in the complaint form? Or the moment they stand in front of the Customer Service desk and announce that they have a complaint? Or when they first joined the queue at the desk?
- ☞ When do I become a customer of the corner shop? Is it when I have made my first purchase? Is it when I walk in the door? Is it when I move into the locality?

We cannot answer these questions without understanding the larger context, the architecture within which this one process sits. So we must defer an answer until Chapter 6.

5 – THE THREE BASIC PROCESS TYPES

How long does a unit of work last? How long is a piece of string? A phone call to the call centre could last twenty seconds; a pharmaceutical drug compound can last twenty years. So there is no minimum or maximum *lifetime* of a case.

Where does a case process ‘finish’? My workshop question is ‘How could I tell you’ve finished?’, or ‘What state are things in when the case has been dealt with?’ We need to be just as thoughtful here as with the start point. When do I cease to be a customer of the corner shop? When I have paid for the goods? When I have left the shop? When I have left the locality? Again, we must know more about the larger context before we can answer this question.

It’s very easy to assume that the end-point of **Handle a customer complaint** is something like ‘The customer has gone away happy.’ That would certainly be a *desirable* outcome of the case process, but it is by no means the only possible outcome. How about ‘The customer drops the complaint’? Or ‘The customer rejects our offer and takes the case to the industry ombudsman’? These are other possible outcomes, and we can imagine the handling of a customer complaint ending – as far as we and our model are concerned – with any one of these three possibilities.

By thinking through the possible outcomes, we are often forced to reconsider the name of the case process – and hence the way we think about it. Take a unit of work such as *Expense claim*. It would be all too easy to think that the case process should be called **Approve an expense claim** (‘Claim to payment?’). The absurdity of this is apparent when we realise that one possible outcome is that the expense claim is rejected. The process is not to *approve* an expense claim but to *handle* an expense claim. This is a mistake that is often made, and of course it can easily blinker our understanding of the process.

The traps can be quite subtle. **Satisfy customer order** (‘Order to cash?’) is exactly the customer-oriented and success-oriented name we might like to give to a process. But some customer orders cannot be satisfied and have to be ‘rejected’. **Handle a customer order** leaves open the fact that our case process must deal with ill-formed orders, and orders from customers we choose not to do business with, and orders sent in error. By using the neutral phrases **Handle a ...** and **Prepare a ...** we leave the other possibilities open and we don’t blinker our thinking.

KEY POINTS

A case process is the process that deals with one ‘case’ or instance of a unit of work.

A case process should be named **Handle a ...** or **Prepare a ...**, depending on whether the unit of work is an input/trigger or an output/outcome.

A case process typically has a single starting point, corresponding to the ‘arrival’ of the case.

A case process can have one or many possible outcomes.

Let’s go back now and examine some of those units of work we identified earlier on. Some of them might feel a tad strange, when we put **Handle a** in front of them. For instance, what are we to make of the case process **Handle a customer**? To start to answer this we must start with the question ‘What is the lifetime of a customer?’ At what point does a new ‘customer’ case

5 – THE THREE BASIC PROCESS TYPES

arise? If our organisation takes a long view of customers then a new case might start the moment we have a name and an address of someone who might buy something from us. Our **Handle a customer** process is now about getting that person into our store, giving them a satisfying retail experience, ensuring they return often, sending them special offers, rewarding frequent purchases, etc. As far as my local supermarket is concerned, I exist as a customer – as a case – even when I am not in their store. My instance of their **Handle a customer** process will probably only end when I tear up my loyalty card and send them the pieces. On the other hand I can think of other shops who might have a **Handle a customer** transaction process, but whose **Handle a customer** process is quite empty.

THE CASE MANAGEMENT PROCESS

The flow of cases

For each unit of work, there is a case process. And, at any one moment, there may be many cases of the unit of work, and hence many instances of that case process in progress. Given all this concurrent activity, possibly sharing resources or facilities, the organisation will need to manage the flux, dealing with issues of planning, scheduling, resource management, task allocation, making go/no-go decisions, reporting, and so on. But when we take the case-oriented view, we are putting aside all of these concerns and concentrating simply on what happens to a single case.

For any unit of work we can therefore expect to find two processes: one for the case, and another for *case management*. We shall refer to the latter process as the *case management process*. The two processes will of course interact, but separating them is vital for effective process design and analysis.

Before we look more closely at how we represent the typical relationships between a case process and a case management process, let's take a closer look at the sort of things that go on in case management processes.

The contents of a case management process

In a case management process we shall expect to see actions to do with

- ☞ planning
- ☞ reporting
- ☞ monitoring
- ☞ scheduling
- ☞ resourcing
- ☞ prioritising
- ☞ negotiating
- ☞ reconciling.

So we shall expect to see roles such as

- ☞ Boards
- ☞ managers

5 – THE THREE BASIC PROCESS TYPES

- ☞ management teams
- ☞ management committees
- ☞ supervisors
- ☞ progress chasers
- ☞ planning teams
- ☞ programme support offices
- ☞ monitoring groups.

The case process is normally quite straightforward, being by definition the process which takes a single case from 'birth' to 'death'. As such it will tend to have one trigger corresponding to the 'birth' of the case, and one or more alternative outcomes corresponding to its different forms of 'death'. For instance, the **Handle an insurance application** case process might be triggered by the arrival of an application and have two alternative outcomes: application accepted and application rejected.

Case management processes are never so simple and rarely single-threaded. The nature of management is that it responds to many different situations and intervenes as necessary, and is pro-active in many other situations. We can therefore expect the full-blown case management process to have many triggers, corresponding to the different stimuli, each with its own outcome(s). We must not imagine that every case management process will contain all of the following components – indeed some case management processes are trivial or even null – but here is a list of typical components of a case management process:

- ☞ Dealing with a request for a new case, i.e. for a case process instance to be started.
- ☞ Negotiating with a requester if the request for a new case cannot be met (at the required resource cost or timescale).
- ☞ Monitoring the progress of current case process instances.
- ☞ Hearing about and dealing with the completion of a case process instance.
- ☞ Hearing about and dealing with exceptions and failures from case process instances.
- ☞ Determining what resources should be assigned to the acting of which case process instances.
- ☞ Adjusting the resources currently allocated to existing case process instances as loading changes.
- ☞ Dealing with requests for shared resources from a case process instance, e.g. actors for new role instances.
- ☞ Dealing with requests, typically from other case management processes, to negotiate about priorities on services being supplied by those case management processes ('escalation').
- ☞ Dealing with instructions from the case strategy process about how case management is to be done.
- ☞ Receiving budgets or resources from 'superior' management processes for providing the service (assuming this is a unit of work that is provided as a service, e.g. an invoice).

5 – THE THREE BASIC PROCESS TYPES

- ☞ Recording and analysing trend data, and responding to the results.
- ☞ Assessing immediate resource trends and estimating near-term resource requirements.
- ☞ Assessing exception trends and redefining the case process for process improvement.
- ☞ Auditing the behaviour of case process instances.

The case management process is essentially taking responsibility for the flow of case process instances. This is key. When a new case of a unit of work comes along and needs an instance of the case process to be started, *it is the case management process that must be asked to start it*: it is the process that decides when – amongst all the other instances contending for time and resources – this new instance is to start. It is the case management process that monitors all the active case process instances and manages resourcing and scheduling amongst them.

A case management process might batch cases until there are enough to start work on them. It might start them in strict order of arrival. It might juggle their ordering depending on their relative priorities. It might move resources from one to another. It will sort out conflicts over priorities between competing cases. We might summarise all this by saying that it ‘manages the flow of cases’.

Naming case management processes

In the same way that we chose ‘neutral’ names for case processes with the **Handle a** and **Prepare a** prefixes, we shall use a similar rule for case management processes: we shall start them with the words **Manage the flow of**. For example, we might have the following processes:

- Manage the flow of purchase orders*
- Manage the flow of customer complaints*
- Manage the flow of production batches*
- Manage the flow of project reports*
- Manage the flow of marketing campaigns*
- Manage the flow of house purchases*

Once again, the purpose of this convention is to concentrate our minds, in particular to help the separation of concerns: dealing with the individual case is the responsibility of the case process; managing across the cases is the responsibility of the case management process.

Whilst we should start with this stilted name, we shall feel free to choose a more meaningful name later, if it’s appropriate.

KEY POINTS

In principle, every unit of work has a case management process that manages the flow of cases of that unit of work.

The case management process exists in only one instance.

It contains management roles carrying out management-related actions to do with scheduling, prioritising, and resourcing.

5 – THE THREE BASIC PROCESS TYPES

Requests for new cases are always directed at the case management process.
It activates case process instances when required.
It interacts with its case process instances when required.

THE RELATIONSHIP BETWEEN CASE PROCESS AND CASE MANAGEMENT PROCESS

We have seen that each unit of work has a case process and a case management process, and we have a good sense of the separation of concerns. A proven strength of this approach is that it gives equal weight to how we deal with day-to-day work (cases) and how we manage that work (case management). Let's look at how the relationship works in practice.

The service relationship

Suppose we are in a factory and we have a unit of work called the 'order'. Down on the production line the unit of work is the 'production batch'. An order arrives. An instance of the **Handle an order** process runs. (How did that happen?) At some point it will determine that a batch must be produced to satisfy the order. Of course the factory already has a number of existing batches going through production. Our instance of **Handle an order** cannot simply start up an instance the **Prepare a batch** process – the new batch needs to be worked into the production schedule. This is precisely the responsibility of the case management process, **Manage the flow of batches**. So our instance of **Handle an order** must ask **Manage the flow of batches** to add the new batch to the schedule, and, when the time is right, it is **Manage the flow of batches** that will start (/instantiate) the **Prepare a batch** process. The **Prepare a batch** process instance then carries out the responsibility of making that one batch at the time and with the resources specified by **Manage the flow of batches**. Put simply, it will make the batch. We can think of **Handle an order** as the 'customer' of 'supplier' **Prepare a batch**, and when the batch has been made it will be supplied by **Prepare a batch** to **Handle an order**.

Let's restate this very precisely in our *Riva* vocabulary:

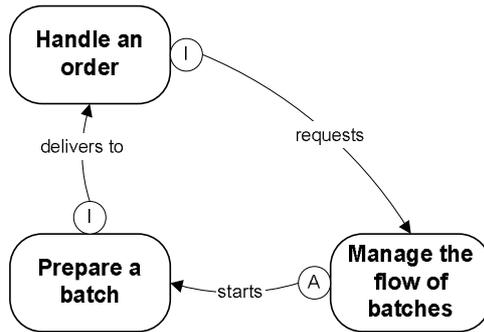
- 1 A **Handle an order** instance interacts with the **Manage the flow of batches** instance to request a batch.
- 2 **Manage the flow of batches** schedules the requested batch.
- 3 **Manage the flow of batches** activates **Prepare a batch** at the appropriate moment.
- 4 Once the batch to satisfy the order is ready, the **Prepare a batch** instance interacts with the requesting **Handle an order** instance in order to hand over the batch. That **Prepare a batch** instance can then finish.

Figure 5-3 shows these basic dynamic relationships between the three processes. (Let's introduce a couple of abbreviations: we shall occasionally use 'CP' for case process, and 'CMP' for case management process.) A rounded rectangle denotes a process. We can tell from its name whether it is a case process or a case management process. An arrow with an *I* in a circle at one end represents an interaction between two processes; the arrow goes from the process that initiates the interaction. An arrow with an *A* in a circle at one end represents activation; the arrow goes from the process that does the activation to the one that is activated. Spend a

5 – THE THREE BASIC PROCESS TYPES

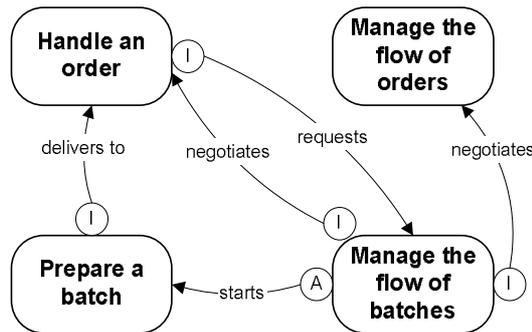
moment checking through steps 1–4 above against Figure 5-3. At the ‘close’ of the relationship in step 4, the service case process ‘delivers’ to the requesting case process. We use the word ‘delivers’ in a very general sense: delivery might take the form of physical delivery – a transfer of goods from one role to another – or it might just be a notification that the service is complete.

Figure 5-3 – The basic service relationship



Life is generally not as simple. Just asking for a batch of twenty units to be ready on 15 June does not guarantee getting a batch of twenty units on 15 June. Is there the capacity given all the other batches in the queue? If not, what has to happen? In reality there will be a negotiation between the ‘customer’ Handle an order and Manage the flow of batches which might involve some reworking of the schedules to achieve the target. And of course other batches may be affected requiring wider negotiation. How is that negotiation done? Typically, Manage the flow of batches must negotiate with Manage the flow of orders. Ultimately, only the CMP for orders can resolve inter-order issues. Let’s add negotiation to the basic service relationship: Figure 5-4.

Figure 5-4 – The basic service relationship with negotiation

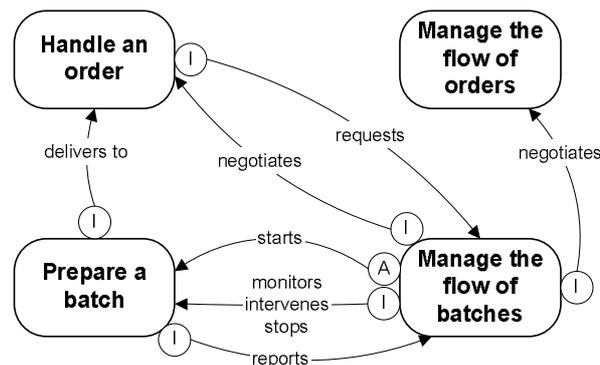


We can also add some other basic management relationships between CP and CMP: the CMP will monitor the CP through a process interaction; in some situations the CMP may

5 – THE THREE BASIC PROCESS TYPES

intervene in the CP, perhaps to notify it of resourcing or scheduling changes, perhaps in extreme situations to stop it; the CP will report status and exceptions and management-related problems to the CMP; and so on. This gives us the general service relationship shown in Figure 5-5.

Figure 5-5 – The general service relationship

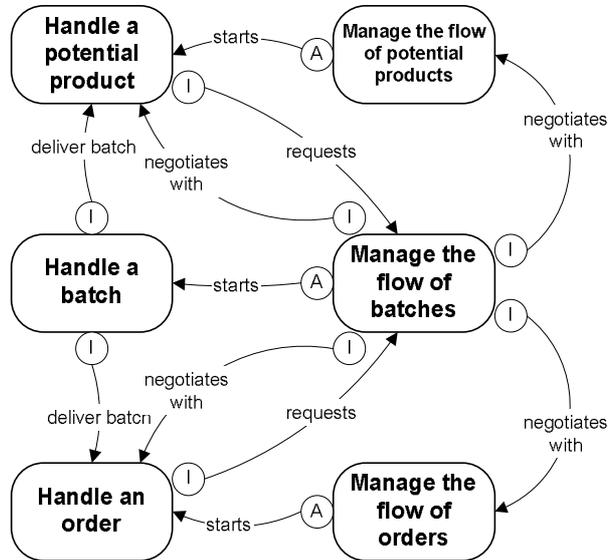


Of course, the full set of relationships shown between **Manage the flow of batches** and **Prepare a batch** also exists – in the general case – between **Handle an order** and **Manage the flow of orders**. (Yes: that original instance of **Handle an order** was created by **Manage the flow of orders**!)

There is another possible complication: the service might be used by the cases of more than one unit of work. Suppose that the R&D Department is working on potential new products. We can think of a ‘potential product’ as a unit of work. It therefore has a case process, **Handle a potential product**, which carries out the R&D necessary to bring the new product to production capability, and a case management process, **Manage the flow of potential products**, which ensures that the R&D pipeline is working optimally. Imagine that, as part of product development, **Handle a potential product** requires test batches to be made in the factory on the same production line. To get those batches made, it too will have to knock on the door of **Manage the flow of batches** and ask to have its batches scheduled in. As well as reconciling the demands for batches to satisfy orders, the CMP must now add to the mix requests for batches for R&D. In Figure 5-6 we can see the resulting process structure: note how **Manage the flow of batches** now has requests for batches coming from two places, and how in some cases it may need to negotiate with the corresponding case management processes to reconcile problems. We can easily imagine some of the tensions that might arise between these, let alone the questions of which customer’s orders are more important than others. The CMP **Manage the flow of batches** becomes the focus of these issues, the place where they are sorted out. In the general case, any CP wanting a service must knock at the door of the appropriate CMP to obtain it.

5 – THE THREE BASIC PROCESS TYPES

Figure 5-6 – Contention for a service



This illustrates even more clearly the importance of the way in which *Riva* lets us cleanly separate issues to do with the single case from issues to do with the *set* of cases in hand at any one time. When we are designing or modelling the case process, we know that we can concentrate on how a single batch is made, or how a single customer call is answered, leaving matters of scheduling and prioritisation and resourcing where they belong: in the case management process.

Finally let's take another example. During the development of a new drug compound, clinical trials are carried out. Many pharmaceutical companies outsource clinical trials to external clinical research organisations (CROs). CROs provide a 'clinical trials service'. In our terminology, **Develop a compound** interacts with the **Manage the flow of clinical trials** process at the CRO when it needs a new clinical trial. That process has responsibility at the CRO for scheduling the clinical trial and, at an appropriate moment, starting it, i.e. activating its **Do a clinical trial** case process. Once the clinical trial is complete, the results are returned by the CRO's **Do a clinical trial** to the pharmaceutical company's **Develop a compound** and the service is complete.

The task force relationship

Let's stand back from what we have just done on the service relationship. The process for satisfying an order needs a batch to be made. It goes to the case management process for batches to request that service. Subsequently the service is delivered. Key to this is the fact that making batches is a *permanent service offered by someone else*. Anyone wanting a batch uses this service. The service operates independently of the processes that use it.

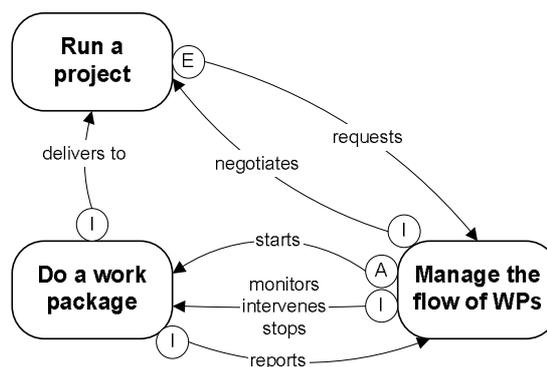
5 – THE THREE BASIC PROCESS TYPES

But when we need a job done we might not always go to a separate service whose job it is to provide it: we might set up the means to do the job ourselves. Let's call those 'means' a *task force*. It's rather as if we ourselves have the case management process for the service.

Here's an example. Imagine a software house which carries out system development projects for clients. They no doubt have a case process called **Run a project**. Each project is planned and carried out as a number of separate work packages for specifying the system, designing parts of the system, developing the many software components, testing those components, and so on. The work package is (by definition!) a unit of work so the software house will have a **Do a work package** case process too. But when a project wants a work package doing, it doesn't go to some independent 'work package service' to get it done; in particular, it doesn't interact with a separate **Manage the flow of work packages** process that deals with work packages from all projects. Managing the flow of work packages is something that the project *does for itself*: it's something that goes on inside – is indeed part of – **Run a project**. Each project itself manages the flow of its own work packages. Each work package is done by a little task force set up to do it that follows the standard process for work packages. There is clearly still case management to be done for work packages: they have to be scheduled, prioritised, resourced and so on, in the usual way. But that last sentence simply describes project planning and control ... which are part of **Run a project**. The underlying relationship between the processes is the same as for the service situation, but with one difference: in the service situation, **Handle an order** and **Manage the flow of batches** were independent processes, which interacted when an order required a batch; in the task force situation, **Manage the flow of work packages** is part of – is *encapsulated in* – **Run a project**.

Our general relationship diagram for the task force relationship now looks like Figure 5-7. The only change from the service relationship diagram in Figure 5-5 is the 'E' for 'encapsulation' instead of the 'I' for 'interaction' where **Run a project** requests a work package from **Manage the flow of work packages**. Note that there is no negotiation with what would be **Manage the flow of projects**: the management of the flow of work packages is *inside* the running of the individual project that wants it, so that sort of negotiation across projects would never occur.

Figure 5-7 – The general task force relationship



5 – THE THREE BASIC PROCESS TYPES

This task force relationship crops up in a number of similar situations. Take the concept of a 'programme of projects'. A business might establish a programme (a unit of work, of course) to make some major business change. Carrying out that change will mean undertaking a number of separate, concurrent, and coordinated projects (another unit of work) to, say, reorganise the department concerned, move staff and offices to a new location, recruit new staff skilled in some new area, update the information systems, and handle HR issues for existing staff. The programme will manage the set of projects itself; it will not go to some separate service that does projects. Put in our terms, we would say that **Run a programme encapsulates Manage the flow of projects**.

We saw how a large pharmaceutical company will have a portfolio of potential drug compounds in development – its 'pipeline'. 'Portfolio' and 'compound' are units of work. In the process **Run the portfolio** new compounds will be identified and added to the portfolio, some will be removed from the portfolio if they do not have the necessary promise, and priorities will be changed between competing compounds in the portfolio. All of these are of course aspects of **Manage the flow of compounds**, and we can see the same task force pattern as in the programme of projects, and the project of work packages. No external service is used for the unit of work required: case management is done 'in-house'.

Let's return to our pharmaceutical company which outsources its clinical trials to a CRO. Fifteen years ago it might have done its own clinical trials. Instead of having a service relationship to get its trials done, it would have had a task force relationship and done its own case management.

KEY POINTS

When one case process wants a case provided by another case process, it must ask the corresponding case management process.

The case management process is responsible for scheduling, prioritising and resourcing cases, and for activating the case process when appropriate.

Where necessary, the case management process will negotiate amongst contending case processes via their respective case management processes.

The case management process can monitor, intervene in, and even stop a case process.

Where a unit of work is supplied as a service, its case management process operates independently.

Where a unit of work is supplied via a task force, its case management process is encapsulated in the requesting case process.

Later, next to the water-cooler

Pupil: As I understand it, the name "task force" is used because a wholly new group might be created to carry out the case process instance. But couldn't this occur in the "service function" as well? When the service function gets the

5 – THE THREE BASIC PROCESS TYPES

request it will instantiate the case process in exactly the same way. Both styles seem to have features of "task forces".

Tutor: Yes, the two situations might be implemented in the same way, but the thing that differentiates them is that, in the task force situation, the case management is effectively done by the requesting case process: I don't expect a service provider to do it. Imagine the situation where you have a project (an instance of the 'Run a Project' case process). To get your project done, you break it up into work packages. Each of these is done by the 'Do a Work Package' case process. Think it through.

Pupil: Well, it's clearly a task force situation as I do the management of the work packages myself, as part of my Project case process. There's certainly a flow of work packages – many are going on at one time. So there is case management to be done and there is a case management process.

Tutor: Exactly. But the case management of work packages isn't done by a service provider – it really is part of your case process for the project: you manage your own work packages within the project. The CMP for work packages is 'within' your case process for the project. It would be different if you subcontracted work packages to a service provider. In that case they would do case management for you, and your work packages would have to take their turn amongst a lot of others from other users of the service.

Pupil: This makes me think that whether a unit of work is dealt with as a service or as a task force is a matter of design. I could choose to deal with it myself or I could ... outsource it.

Tutor: Right. We could see this as a re-engineering opportunity: an inflexible centralised service could be disbanded in favour of giving individual groups the freedom to set up their own task forces as and when they require them; or, on the other hand, inefficiently replicated DIY processes could be replaced by a central service achieving economies of scale. The world is full of people swinging from one to the other. Most recently, outsourcing of non-core processes has been all the rage: in *Riva* terms, people have been giving the case and case management processes for what we shall call *designed* units of work to others to do for them, whilst keeping the case and case management processes of (what we shall call) their essential units of work in house. That's the *Riva* definition of 'outsourcing'.

MODELLING THE CP-CMP RELATIONSHIP AT RAD LEVEL

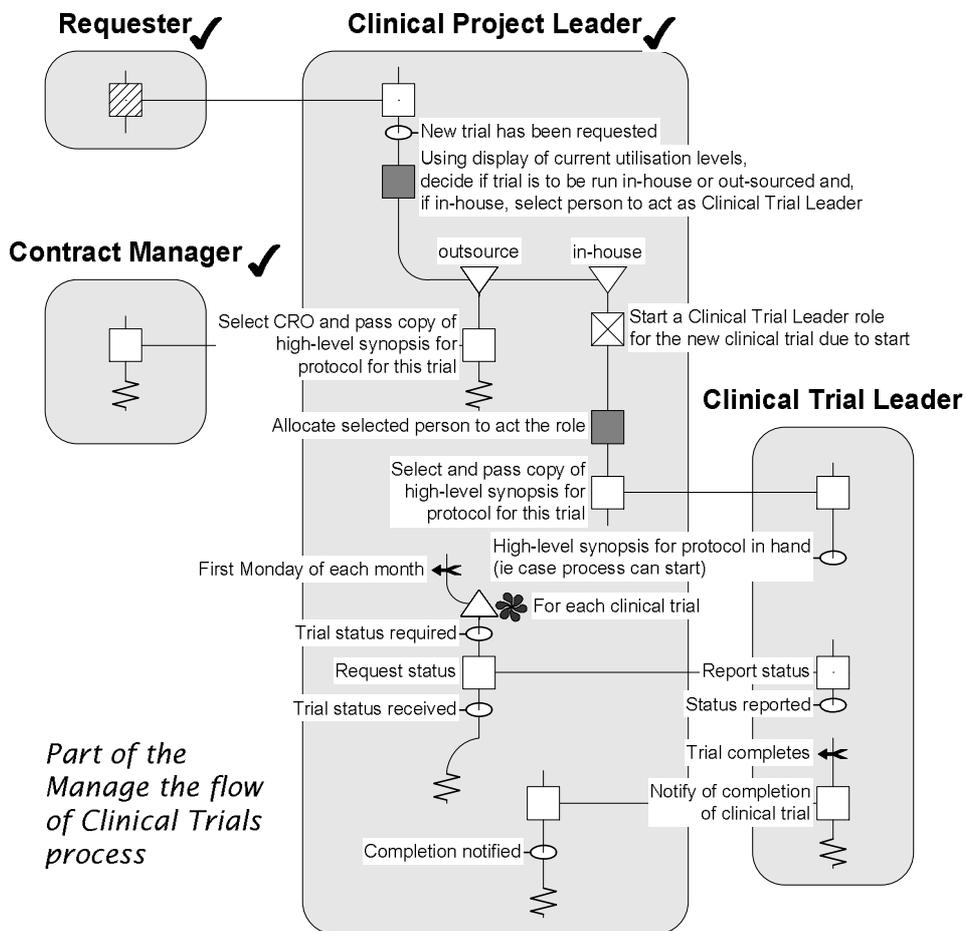
We now know, at the process level, what form the relationship between case processes and case management processes takes: we have the generic pictures in Figures 5-5 and 5-7. What do these relationships look like in the RADs concerned? Again, generically we know that we shall be using activation when the CMP wants to start a CP, and an interaction when a CP wants to deliver something to the requesting CP, when a CMP wants to monitor a CP, and so on.

5 – THE THREE BASIC PROCESS TYPES

Let's look at some simple examples to see this in practice. Figure 5-8 shows us part of the case management process that we might have in a pharmaceutical company for clinical trials. We have shown just three of the potentially many threads that might make up such a process. They are all in the main role *Clinical Project Leader*:

- ☞ the thread that responds to a request for a new clinical trial;
- ☞ the thread that carries out regular monitoring of all the clinical trials currently in progress;
- ☞ the thread that responds to announcement of the completion of a clinical trial.

Figure 5-8 – Part of a case management process for clinical trials



Spend a moment examining these three threads:

- 1 The top thread starts with a request for a new clinical trial from a requesting process. This process interaction takes the form of a role interaction between *Clinical Project*

5 – THE THREE BASIC PROCESS TYPES

Leader and the ‘anonymous’ role *Requester*. If a clinical trial is to be done in-house, **Manage the flow of Clinical Trials** immediately activates its case process – **Handle a Clinical Trial** (Figure 5-9) – by instantiating that process’s lead role, *Clinical Trial Leader*.

- 2 The middle thread involves an interaction with each of the current instances of **Handle a Clinical Trial** in the form an interaction with their lead role instances.
- 3 The bottom thread captures an interaction with an instance of **Handle a Clinical Trial** which is competing. This process interaction takes the form of a role interaction between *Clinical Trial Leader* in **Handle a Clinical Trial** and *Clinical Project Leader* in **Manage the flow of Clinical Trials**.

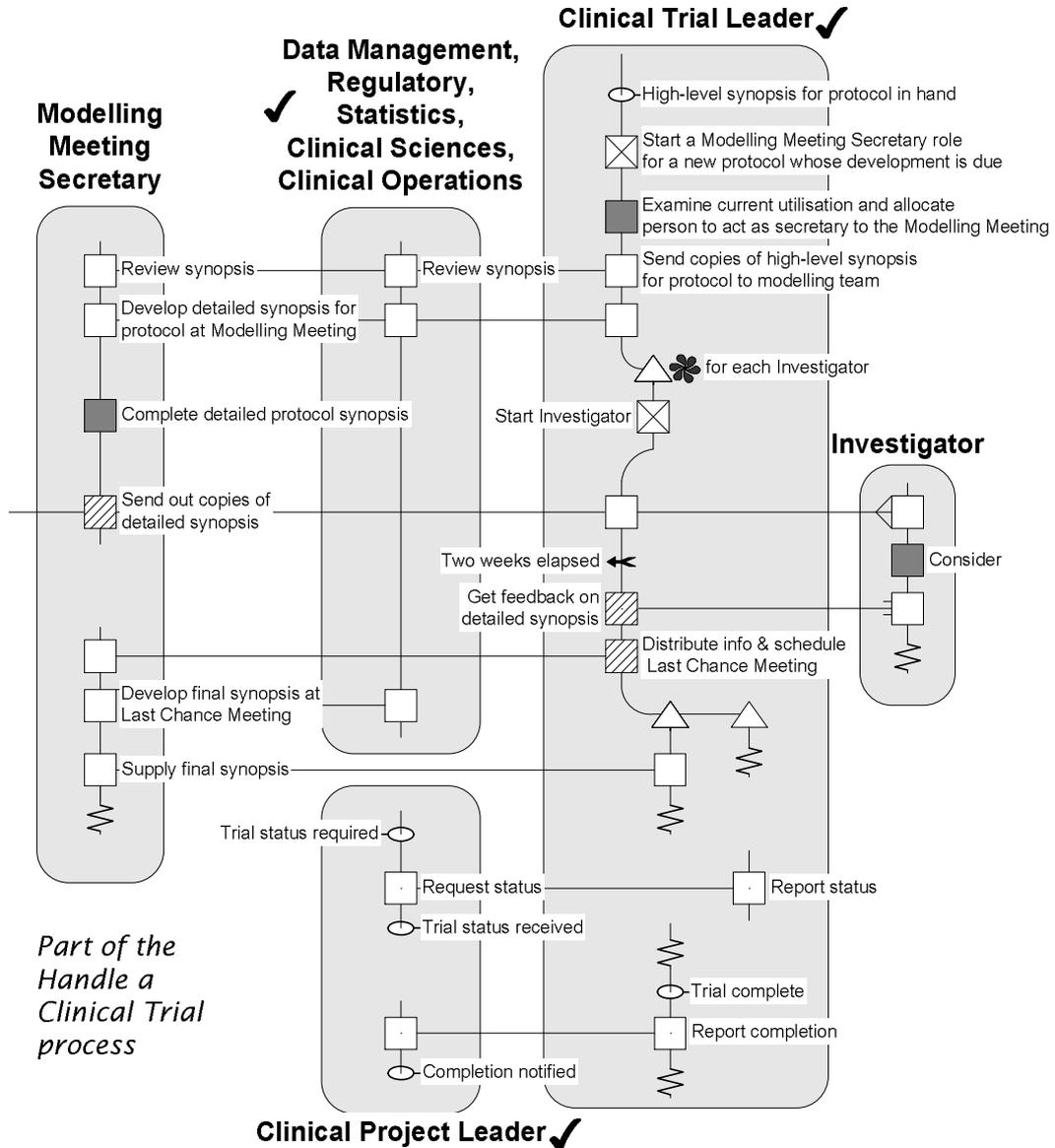
Figure 5-9 shows some of the case process **Handle a Clinical Trial**, and three threads in particular within *Clinical Trial Leader*:

- 4 The top thread begins with the state that the lead role, *Clinical Trial Leader*, starts in – *High-level synopsis for protocol in hand* – and proceeds on its way.
- 5 The middle thread responds when necessary to a status request from the Clinical Project Leader in the case management process **Manage the flow of Clinical Trials** – this role interaction represents the process interaction in item 2 above.
- 6 The bottom thread is where the Clinical Trial Leader reports completion of the trial to **Manage the flow of Clinical Trials**; again the process interaction takes the form of a role interaction, corresponding to item 3 above.

We might also expect that the process – perhaps in the form of the Clinical Trial Leader – provides the results of the trial to the original requesting case process somewhere downstream.

5 – THE THREE BASIC PROCESS TYPES

Figure 5-9 – Part of a case process for clinical trials



Later still, next to the water-cooler

Pupil: I'm a bit troubled by one aspect of the activation of case processes. When the case management process wants to activate the case process, it does it in the standard way: by instantiating the lead role of the case process. This implies that the lead role is a transient, probably abstract role, with an -ing name,

5 – THE THREE BASIC PROCESS TYPES

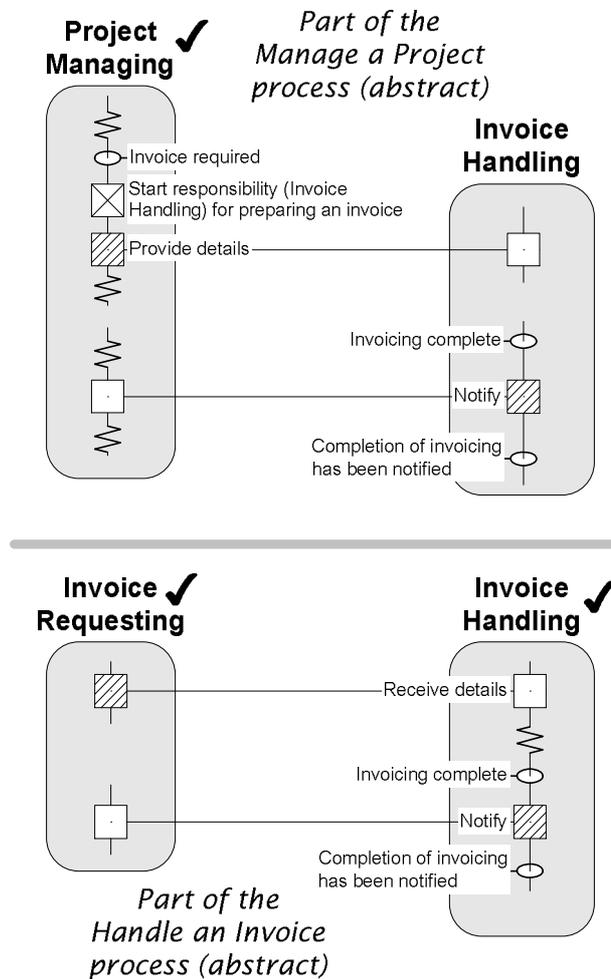
such as *Batch Making*. But what actually happens of course is that a real, concrete role starts the work, such as *Plant Operative*. How do you reconcile these two things?

Tutor: A good point. When we want something done – an invoice prepared, a batch made, an examination paper marked – we are basically creating the responsibility for doing it. That's what instantiating a role is about. So I hope you can see that instantiating the (abstract) lead role does make sense.

Pupil: Yes, I can, but square that up with the concrete side of things for me.

Tutor: You've answered the question: are we preparing a concrete model or an abstract model? If it's an abstract model we shall see something like Figure 5-10, in which we instantiate the lead role to create the responsibility.

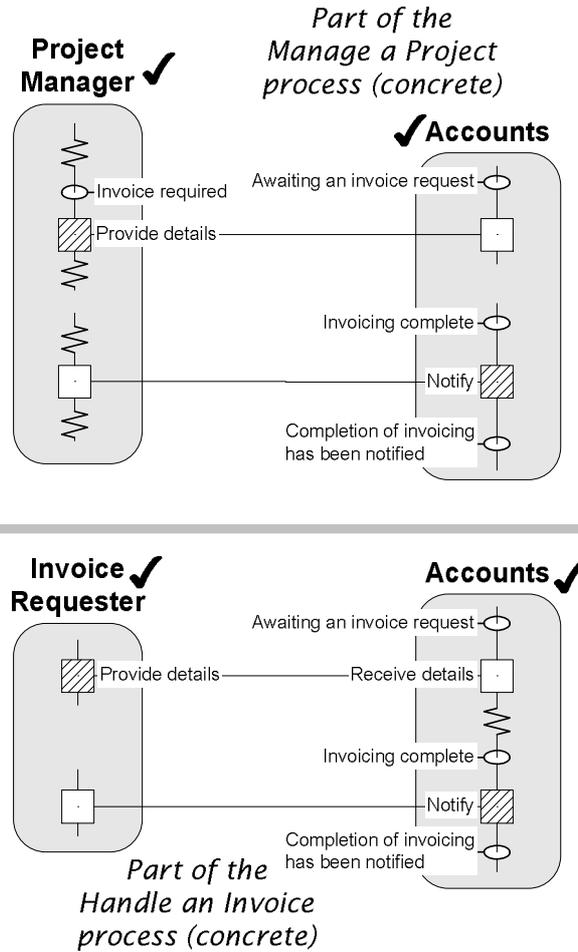
Figure 5-10 – Abstract case process activation



5 – THE THREE BASIC PROCESS TYPES

If we want a concrete model we shall have something like Figure 5-11, in which we simply interact with the concrete role and fire up its main thread to deal with the new case – what we called a ‘service interaction’ in Chapter 2.

Figure 5-11 – Concrete case process interaction



Which of these perspectives we choose depends on our reasons for modelling, as always. But I hope you can see that they both allow us to represent the concurrency that is possible with many cases in hand at once. In the abstract scheme (which I would prefer, all things being equal) each case has its own instance of the lead role. In the concrete scheme, each case has its own ‘instance’ of the thread of the main role.

5 – THE THREE BASIC PROCESS TYPES

THE CASE STRATEGY PROCESS

So far, we have seen how the case process deals with an individual case of a unit of work, and the case management process deals with the flux of instances of the case process, or, as we put it, 'manages the flow of' those cases. Now suppose we walk into the building of the organisation we are interested in and look around us. Some people will be engaged in dealing with cases, others will be managing the flow of cases. Have we accounted for all the activity in the building if we list all the case processes and their case management processes? Not yet. There is one more sort of activity going on, and it involves people 'standing back' and taking the long view, the strategic view, of what is happening. The case processes are about front-line, coal-face activity; the case management processes are about managing that coal-face activity. *Case strategy processes* are about taking the strategic view of units of work, and driving the case processes and case management processes accordingly. A case strategy process (CSP) has its CP and CMP as subject matter. It asks questions such as:

- ☞ What is happening inside our business that will affect my unit of work and how it is dealt with?
We are a water supply company and we have a big drive on to get more households on metered supplies. Meters need reading, and readings raise queries. How will the metering drive affect call rates at the Call Centre?
- ☞ What is happening outside our business that will affect it?
The regulatory bodies in the pharmaceutical industry are taking greater interest in how we develop the software that we use in the R&D phase of our work. How will that affect the processes we use to develop that software?
- ☞ Is the nature of the unit of work changing?
Bank customers are increasingly prone to moving their accounts from one bank to another in response to changes in charges. How should our handling of customers change to accommodate this trend?
- ☞ Are the rates or volumes of our unit of work changing?
There are some significant changes going on in the types of courses that students sign on for. What does this mean for the processes that manage the courses that are suddenly finding themselves popular?
- ☞ What is the performance of our CP and CMP? Is it adequate and can it be improved?
We have collected measurements of throughput and turn-around time for the processing of job applications. Do we need a different approach to scheduling in the case management process, combined with reorganised responsibilities in the case process?
- ☞ Are our CP and CMP actually being carried out in accordance with company procedures?
The industry regulator takes a keen interest in the way our software is developed. Let's audit what is actually happening on the ground in our CP and CMP (instances) and ensure that we are up to the mark.

5 – THE THREE BASIC PROCESS TYPES

We collect these strategic considerations into the case strategy process. Typically, a case strategy process (CSP) will have many threads, rather like a case management process. Some threads will be event-driven, triggered when something happens inside or outside the business that needs consideration and perhaps a response. Other threads will be calendar-driven, and involve regular strategic reviews of business trends or industry trends. Either way, the outcome of the work of a case strategy process is likely to be changes or instructions to its case process and case management process.

Naming case strategy processes

As with the other two basic process types, we shall name case strategy processes in a stilted way as a starting point:

Maintain a strategic view of purchase orders

Maintain a strategic view of customer complaints

Maintain a strategic view of production batches

Maintain a strategic view of project reports

Maintain a strategic view of marketing campaigns

Maintain a strategic view of house purchases

The goal as ever is to focus our minds on the exact area of concern of this process, and to separate it from the concerns of the coal-face processes and their management processes.

KEY POINTS

The case strategy process takes the long-term internal and external view.

It treats its case process and case management process as subject matter and might cause them to be changed.

SUMMARY

We can bring together the three basic process types in one diagram: Figure 5-12. The hypothesis in *Riva* is that any activity we observe when we walk into the organisation's building will be part of a case process, a case management process, or a case strategy process. This trinity of processes and their relationships give us the underpinning theory that we need to determine the organisation's process architecture, as we shall see in the next chapter.

5 – THE THREE BASIC PROCESS TYPES

Figure 5-12 The process trinity

