Depict a business process viewpoint using ArchiMate

What is ArchiMate?
ArchiMate offers a visual language to model and capture enterprise architecture. It provides a means to visualize relationships within and between different domains. These domains primarily include products/services, processes, organization, data applications and technical infrastructure.

Why use ArchiMate?
The domains mentioned above provide contexts for different stakeholders to analyze, design or communicate in order to address their different concerns. For example, a data architect may want to visualize what data are required for which products and services to customers. Perhaps a business analyst is looking to relate logical and physical business processes, which are independent and dependent of implementation, respectively. Or an enterprise architect is working to optimize and best match the applications in use with the existing technical infrastructure.

How are model elements organized in ArchiMate?
With 3 types of layers, ArchiMate provides a way to look at service-oriented models. From top to bottom, they are business, application and technology. The further we go down, the more information we get in terms of implementation (sometimes we may use the term “realize” instead).

At the top level, the business layer highlights services provided for customers. In the middle, the application layer focuses on applications that support those services available to customers. At the bottom we can find the technology layer which shows the technical infrastructure offering services to those applications in the application layer.

Below is an ArchiMate diagram example with both the technology and application layer. In it, we can see that the Inpatient care management application is implemented (or realized) by the infrastructure, messaging service and data access service.
What will we do in this tutorial?
In this tutorial, we are going to walk you through how to draw an ArchiMate diagram that looks at the procedures of discharging hospital patients, particularly from a business process viewpoint.

Upon completion of the tutorial, we should end up with a diagram similar to the below.

Note: For simplicity reason, we will limit our discussion to the business layer only in this example.

Software we’ll use

We’ll be using Visual Paradigm Enterprise Edition. You are welcome to download a free evaluation copy.

Steps to draw the ArchiMate diagram example

1. Start Visual Paradigm with a new project. From the main toolbar at the top, click Enterprise > ArchiMate Diagram.

2. To rename your new diagram (e.g. from ArchiMate Diagram 1), right click on any white space in the diagram pane and select Rename... When the diagram name box appears, enter a name of your choice (e.g. Discharging Patients).
3. From the Diagram Toolbar, place your cursor over Business Event and then drag it onto the diagram. Release your mouse button to drop it. Name the new event Patient recovered.

4. To create the next process, select event Patient recovered. Drag the icon Triggering -> Business Process to the right. Release your mouse button at where you want to place it.

5. Name the new process Patients’ discharge.

Some drawing tips
Initially, the process shape is of relatively small size. Here we will make it bigger so that we can draw several processes within it later. To do that, select event Patients’ discharge to show the 8 handles in small black squares around it. As an example, place your mouse pointer over the lower right handle. A double-headed arrow will appear on top of the handle. Then pull the arrow to enlarge the shape. Similarly, you can choose to use the other handles to change the size of the shape as you wish.

After you enlarge the shape, it should look something similar to the below (in terms of proportions).

Note: It is not important to get it exact now because you can always resize the shape as you see
it fit along the way.

To clear way for us to draw processes within later, let’s move the label “Patients’ discharge” up to the top center. To do that, right click on Patients’ discharge. From the popup menu, select Presentation Options > Caption Placement > Top Center.

The label should now appear at the top center.
6. We will now draw the first process within the Patients’ discharge process. Select event *Patient recovered*. Drag it into the *Patients’ discharge* process. Name it *Assess conditions*.

7. Next we will rewire the connector (triggering) coming out of *Patient recovered* to *Assess conditions*. Select the connector and pull to the right to extend it until it touches the boundary.

8. During the process of *Assess conditions*, a discharge order is created by the physician. To depict it, select *Assess conditions*, drag the **Write Access -> Business Object** icon downward outside of the enclosing *Patients’ discharge* process. Name it *Discharge order*. 
Double click the connector to open the input box. Enter *create*.

9. Next we will rewire the connector (triggering) coming out of *Patient recovered* to *Assess conditions*. Select the connector and pull to the right to extend it until it touches the boundary.

10. During the process of *Assess conditions*, a discharge order is created by the physician. To depict it, select *Assess conditions*, drag the *Write Access -> Business Object* icon downward outside of the enclosing *Patients’ discharge process*. Name it *Discharge order*. 
11. Similarly, create the last process from Schedule follow up appointments. Name it Settle payment.

![Diagram showing the flow from Schedule follow up appointments to Settle payment.]

12. As our last step, we are going to create an invoice from Settle payment. Select Settle payment, drag the Read Access -> Business Object icon downward outside of the enclosing Patients’ discharge process.

Note: Read access is chosen here (instead of write access) because the invoice is for viewing only as a reference.

![Diagram showing the addition of a Read Access icon and the connection to the Settle payment and Invoice elements.]

Double click the connector to open the input box. Enter read.
Links you may also be interested in

- YouTube Video – How to add tagged values to model elements in ArchiMate diagrams
- Textual Tutorial – How to add tagged values to model elements in ArchiMate diagrams
- What Visual Paradigm offers for enterprise architecture
- Learn more about ArchiMate from the Open Group, a global consortium for IT standards