



CS544 EA

Integration

Integration: Basic Example

```

@SpringBootApplication
@EnableIntegration
public class App {
    public static void main(String[] args) {
        new SpringApplicationBuilder(App.class)
            .web(WebApplicationType.NONE).run(args);
    }
}

```

Boot app without web
and no need for
application.properties

Beans are automatically made for channels

```

@Bean
@InboundChannelAdapter(value = "fileInputChannel", poller = @Poller(fixedDelay = "1000"))
public MessageSource<File> fileReadingMessageSource() {
    FileReadingMessageSource source = new FileReadingMessageSource();
    source.setDirectory(new File("/tmp"));
    CompositeFileListFilter<File> comp = new CompositeFileListFilter<>();
    comp.addFilter(new SimplePatternFileListFilter("*.person.txt"));
    comp.addFilter(new AcceptOnceFileListFilter<File>());
    source.setFilter(comp);
    return source;
}

```

InboundChannelAdapter
reads from file system every
1000 milliseconds

In /tmp directory

Filters for files ending in .person.txt

Filters for files not seen before

```

@Bean
@Transformer(inputChannel = "fileInputChannel", outputChannel = "processFileChannel")
public FileToStringTransformer fileToStringTransformer() {
    return new FileToStringTransformer();
}

```

Transforms File to String from
fileInputChannel to processFileChannel

```

@Bean
@Transformer(inputChannel = "processFileChannel", outputChannel = "personChannel")
public JsonToObjectTransformer jsonToObjectTransformer(){
    return new JsonToObjectTransformer(Person.class);
}
}

```

Transforms JSON to Person from
processFileChannel to personChannel

Basic Example

- After the file is filtered and transformed the personChannel ends at a @ServiceActivator

```
package edu.mum.cs544;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.integration.annotation.ServiceActivator;
import org.springframework.stereotype.Component;

@Component
public class FsEndpoint {
    @Autowired
    private PersonService personService;

    @ServiceActivator(inputChannel = "personChannel")
    public void getPerson(Person p) {
        if (p.getId() == null) {
            personService.add(p);
        } else {
            personService.update(p);
        }
        System.out.println(personService.getAll());
    }
}
```