# **Scrum Overview**

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AMOS C03

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### Agenda

- 1. Scrum overview
- 2. Product owner
- 3. Software developer
- 4. Scrum master
- 5. Core activities

### **Principles of the Agile Manifesto [A01]**

- 1. Individuals and Interactions (over Processes and Tools)
- 2. Working Software (over Comprehensive Documentation)
- 3. Customer Collaboration (over Contract Negotiation)
- 4. Responding to Change (over Following a Plan)

#### **Process and Technical Practices**

**Scrum** (for process practices)

XP (for technical practices)

### 1. Scrum Overview

#### Scrum Definition 1 / 2

- An agile method, invented around 1993, 1995
- A rugby situation requiring intense collaboration



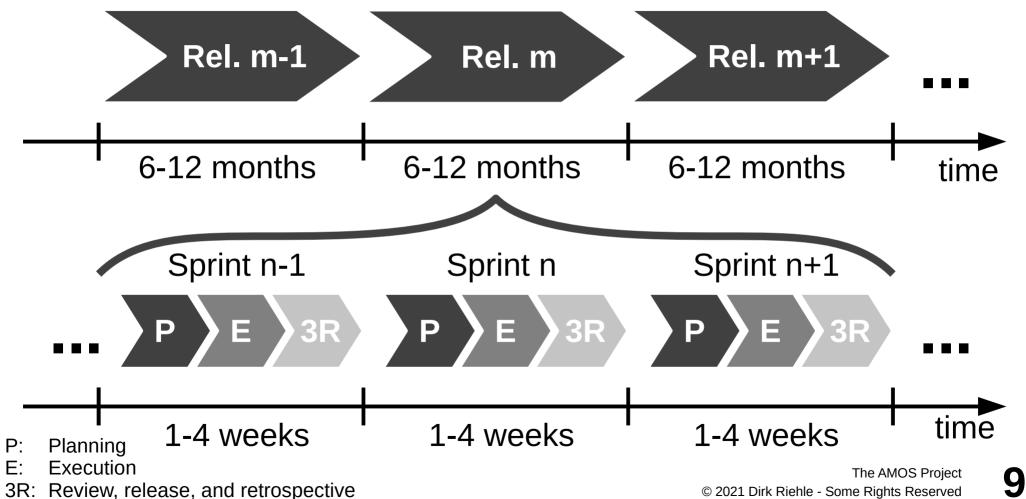
#### **Scrum Definition 2 / 2 [S04] [C06]**

- A (minimal) agile process model
- Independent of software development
- Where definitions sometimes vary (two fathers)

#### **Scrum Process Scope**

- 1. Portfolio
- 2. Product
- 3. Release
- 4. Sprint
- 5. Day

#### **Scrum Process Overview**



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#### Scrum Roles, Practices, and Artifacts

### Roles



- Product owner
- Software developer [1]
- Scrum master

### **Practices**

Perform Daily Scrum

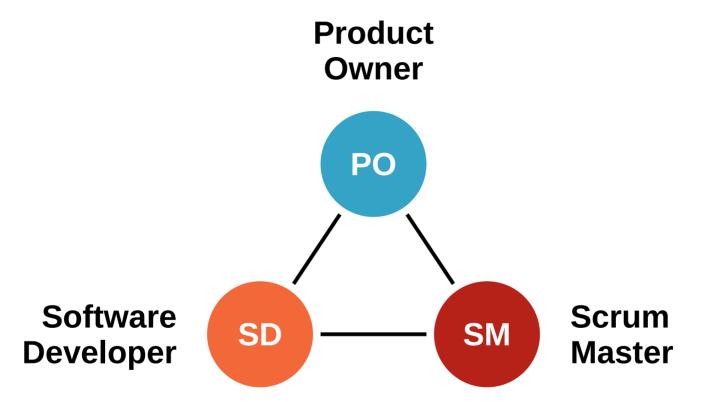
- Sprint planning
- Daily Scrum
- Sprint review
- Release planning
- ...

### **Artifacts**

Product Backlog

- Product backlog
- Sprint backlog
- Burn-down chart
- ..

### **Scrum Roles and Responsibilities**



#### **Committed vs. Involved (Scrum Lore)**

#### Committed

- Product owner
- Software developer
- Scrum master

#### Involved

- Customer
- Marketing manager
- Sponsor / funder
- Others ...

### 2. Product Owner

#### **Product Owner**

- Holds overall responsibility for the product being developed
- Provides
  - product vision,
  - product requirements
- Plans and helps plan development
- Tracks progress

### **Product Owner Responsibilities**

- 1. Opportunity Assessment
- 2. Product Specification

3. Development Planning

4. Progress Tracking

### **Traditional to Scrum Role Mapping (Recap)**

**Traditional** Scrum **Product Manager Product Owner Engineering Manager** Software Developer Software Developer Scrum Master **QA** Engineer

#### **Product Owner Processes and Artifacts**

Processes	Artifacts
Opportunity Assessment	Product Vision
Product Specification	Product Glossary Product Backlog Feature Archive
Product Planning	Sprint Backlog Release Plan
Progress Tracking	Burn-down Charts Feature Archive

#### **Traditional vs. Scrum Product Management**

#### Traditional Product Manager

- Product manager is responsible for product strategy and specification
- Product manager does not interfere with detail development planning
- Product Manager is frequently high-level, delegates product decisions to engineering

#### Scrum Product Owner

- Product owner is also responsible for product strategy and specification
- Product owner shoulders some of the engineering manager role
- Product owner is very much in the details of planning and tracking development
- The Scrum product owner mostly matches the technical product manager [1]

# Scrum is a framework and thus typically enhanced with other roles and responsibilities

## 3. Software Developer

#### **Software Development Team**

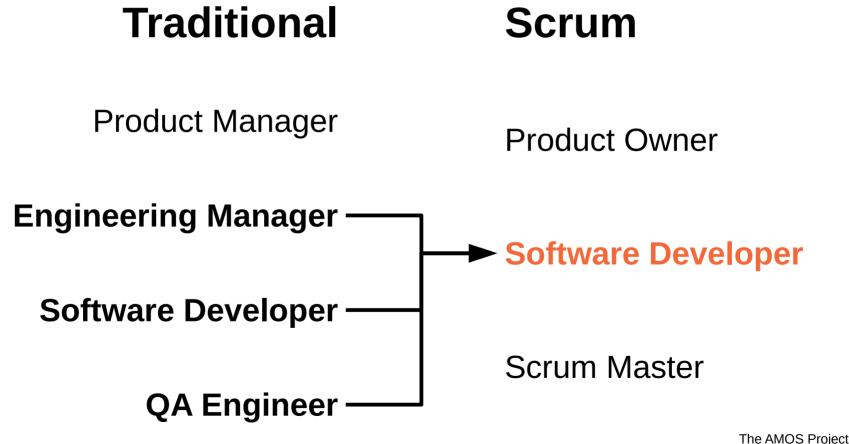
- Holds overall responsibility for delivering working software
  - That provides the features the team committed to delivering

### Software Developer Responsibilities

- 1. Architecture Definition
- 2. Feature Implementation

- 3. Size Estimation
- 4. Sprint Commitment

### **Traditional to Scrum Role Mapping (Recap)**



### **Software Developer Processes and Artifacts**

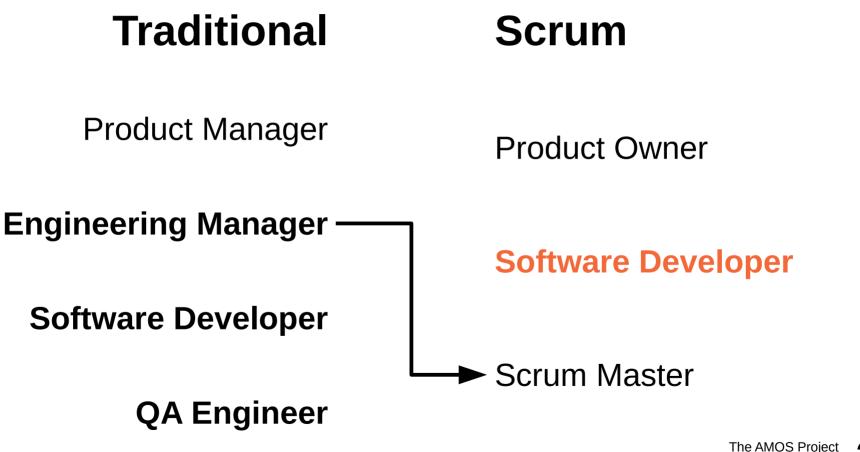
Processes	Artifacts
Development Planning	Sprint Backlog
Software Development	Software
Quality Assurance	Software

### 4. Scrum Master

#### **Scrum Master**

- Holds overall responsibility for
  - Removing non-technical obstacles from the project's path

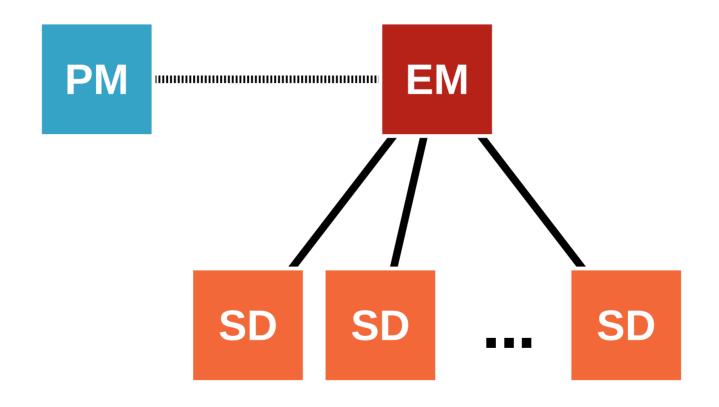
### **Traditional to Scrum Role Mapping (Recap)**



#### **Scrum Master Processes and Artifacts**

Processes	Artifacts
Process Facilitiation	Impediment Backlog
Process Improvement	Impediment Backlog

### **Line Reporting (vs. Roles)**



PM Product Manager
EM Engineering Manager
SD Software Developer

### **5. Core Activities**

#### **Scrum Sprints (Iteration)**

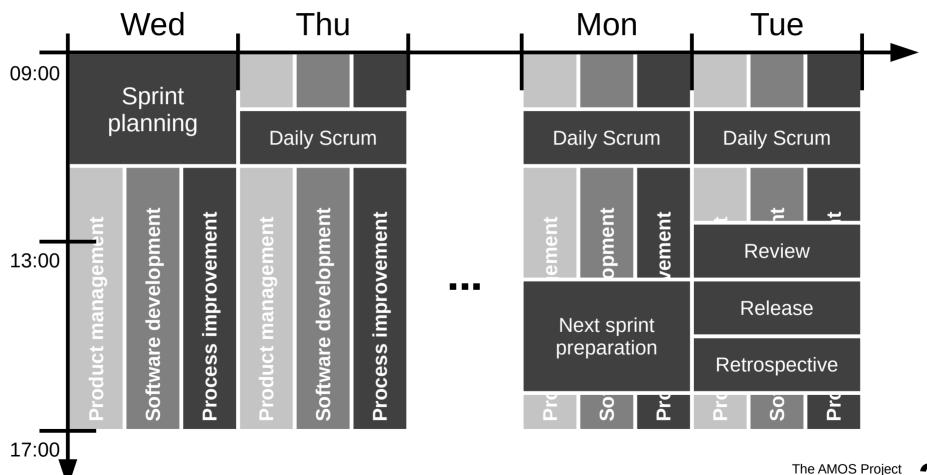
- A sprint is Scrum's iteration; it is an equal-length time-box
- It is a highly structured process with defined feedback points



P: Planning

E: Execution 3R: Review, release, and retrospective

### **Sprint Structure**



### **Main Work Streams of Sprints**

- 1. Product management (Product owner)
- 2. Software development (Software developer)
- 3. Process improvement (Scrum master)

#### **Sprint Planning**

#### Definition

- Serves to plan the upcoming sprint's work
- Involves product owner, software developers, and Scrum master
- Results in sprint backlog containing the upcoming sprint's work

#### Activities

- Product owner
  - The product owner provides the prioritized list of features
- Software developer
  - The software developers estimate feature size using planning poker
  - Features keep being added to sprint backlog until there is enough work
  - Software developers breakdown features into tasks, distribute them
- Scrum master
  - Observes team dynamics

#### **Sprint Execution**

#### Definition

Serves to evolve product

#### Activities

- Product owner
  - Answers developer questions about features
  - Evolves product backlog, updates release plan

#### Software developer

- Implement features from sprint backlog
- Interact with product owner to refine feature specifications

#### Scrum master

- Learns about process impediments
- Tries to fix those impediments

#### **Next Sprint Preparation**

#### Definition

- Serves to prepare the upcoming sprint planning meeting
- Involves product owner and at least one software developer
- Results in sufficiently comprehensive product backlog

#### Activities

- Product owner
  - The product owner provides the prioritized list of features
  - Includes high-priority bug reports as backlog entries
- Software developer
  - Provides size estimates for highly prioritized features
  - Adds refactorings for planning consideration

#### **Sprint Review, Release, and Retrospective**

#### Definition

- Sprint review
  - Product owner reviews results
  - Team signs off on finished features
- Sprint release
  - Stakeholders sign off
  - If so, product is released
- Sprint retrospective
  - Team reviews process
  - Developers commit to improvements

#### **Review / Summary of Session**

#### Scrum defined

- Scrum process overview and scope
- Scrum roles, activities, and artifacts
- When compared with traditional definitions

# Thank you! Questions?

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