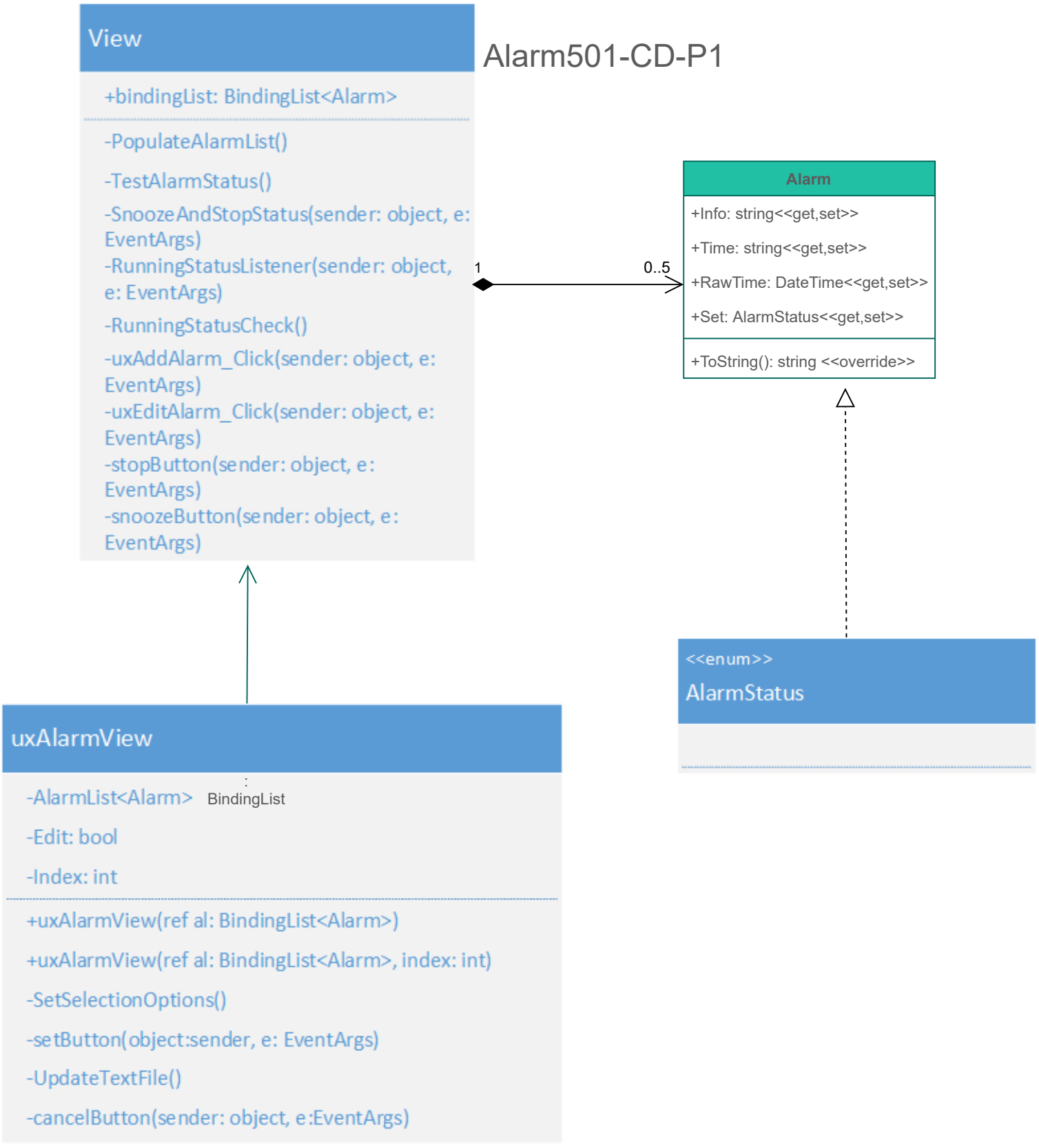

View
+bindingList: BindingList<Alarm>
-PopulateAlarmList()
-TestAlarmStatus()
-SnoozeAndStopStatus(sender: object, e: EventArgs)
-RunningStatusListener(sender: object, e: EventArgs)
-RunningStatusCheck()
-uxAddAlarm_Click(sender: object, e: EventArgs)
-uxEditAlarm_Click(sender: object, e: EventArgs)
-stopButton(sender: object, e: EventArgs)
-snoozeButton(sender: object, e: EventArgs)
Alarm501-CD-P1
Alarm
+Info: string<<get,set>>
+Time: string<<get,set>>
+RawTime: DateTime<<get,set>>
+Set: AlarmStatus<<get,set>>
+ToString(): string <<override>>
1
0..5
<<enum>>
AlarmStatus
uxAlarmView
-AlarmList<Alarm>
BindingList
-Edit: bool
-Index: int
+uxAlarmView(ref al: BindingList<Alarm>)
+uxAlarmView(ref al: BindingList<Alarm>, index: int)
-SetSelectionOptions()
-setButton(object:sender, e: EventArgs)
-UpdateTextFile()
-cancelButton(sender: object, e:EventArgs)

Coupling/Cohesion

Subassemblies: 2

A

A uX V

C

Classes: 3

C(D) = 2/3 = .667

Class Name Reference:
A = Alarm
V = View
uX = uxAlarmView

COHESION:

A;

F(A) = 4

M(A) = 1

H(A) = 1/4 = .25

V:

F(V) = 1

M(V) = 9

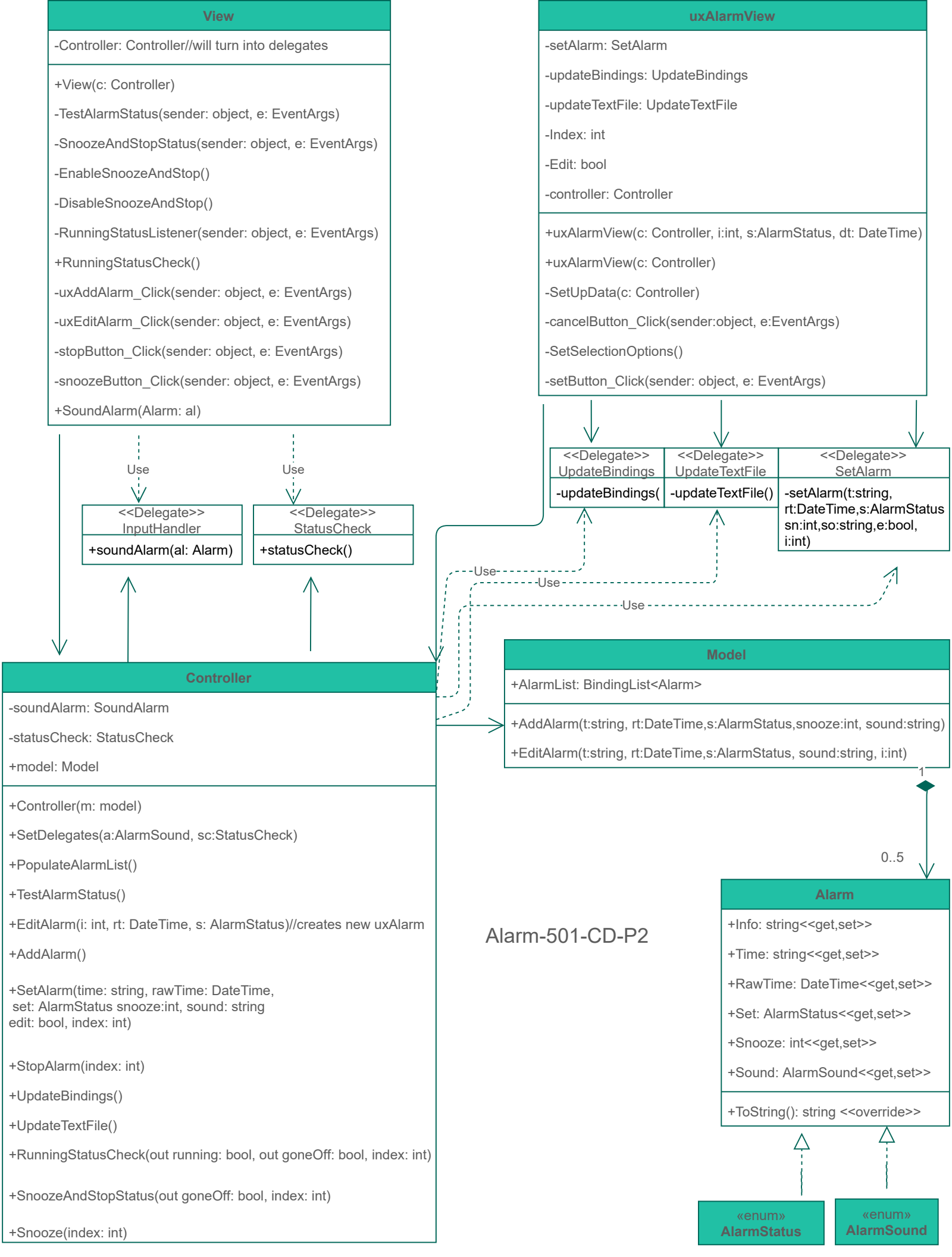
H(V) = 9/(9*1) = 1

uX:

F(uX) = 3

M(uX) = 6

H(uX) = (4+2+2)/(3*6) = .444


View
-Controller: Controller//will turn into delegates
+View(c: Controller)
-TestAlarmStatus(sender: object, e: EventArgs)
-SnoozeAndStopStatus(sender: object, e: EventArgs)
-EnableSnoozeAndStop()
-DisableSnoozeAndStop()
-RunningStatusListener(sender: object, e: EventArgs)
+RunningStatusCheck()
-uxAddAlarm_Click(sender: object, e: EventArgs)
-uxEditAlarm_Click(sender: object, e: EventArgs)
-stopButton_Click(sender: object, e: EventArgs)
-snoozeButton_Click(sender: object, e: EventArgs)
+SoundAlarm(Alarm: al)
uxAlarmView
-setAlarm: SetAlarm
-updateBindings: UpdateBindings
-updateTextFile: UpdateTextFile
-Index: int
-Edit: bool
-controller: Controller
+uxAlarmView(c: Controller, i:int, s:AlarmStatus, dt: DateTime)
+uxAlarmView(c: Controller)
-SetUpData(c: Controller)
-cancelButton_Click(sender:object, e:EventArgs)
-SetSelectionOptions()
-setButton_Click(sender: object, e: EventArgs)
Use
Use
<<Delegate>>
InputHandler
+soundAlarm(al: Alarm)
<<Delegate>>
StatusCheck
+statusCheck()
<<Delegate>>
UpdateBindings
-updateBindings(
<<Delegate>>
UpdateTextFile
-updateTextFile()
<<Delegate>>
SetAlarm
-setAlarm(t:string,
rt:DateTime,s:AlarmStatus
sn:int,so:string,e:bool,
i:int)
Use
Use
Use
Controller
-soundAlarm: SoundAlarm
-statusCheck: StatusCheck
+model: Model
+Controller(m: model)
+SetDelegates(a:AlarmSound, sc:StatusCheck)
+PopulateAlarmList()
+TestAlarmStatus()
+EditAlarm(i: int, rt: DateTime, s: AlarmStatus)//creates new uxAlarm
+AddAlarm()
+SetAlarm(time: string, rawTime: DateTime,
set: AlarmStatus snooze:int, sound: string
edit: bool, index: int)
+StopAlarm(index: int)
+UpdateBindings()
+UpdateTextFile()
+RunningStatusCheck(out running: bool, out goneOff: bool, index: int)
+SnoozeAndStopStatus(out goneOff: bool, index: int)
+Snooze(index: int)
Model
+AlarmList: BindingList<Alarm>
+AddAlarm(t:string, rt:DateTime,s:AlarmStatus,snooze:int, sound:string)
+EditAlarm(t:string, rt:DateTime,s:AlarmStatus, sound:string, i:int)
1
0..5
Alarm
+Info: string<<get,set>>
+Time: string<<get,set>>
+RawTime: DateTime<<get,set>>
+Set: AlarmStatus<<get,set>>
+Snooze: int<<get,set>>
+Sound: AlarmSound<<get,set>>
+ToString(): string <<override>>
«enum»
AlarmStatus
«enum»
AlarmSound
Alarm-501-CD-P2

Notes:
Subassemblies:
A
AM
AMC
VCMA
uXCMA
AMCVuX
#/Subassemblies= 6, #/Classes = 5
C(D) = 6/5 = 1.25
Cohesion Values:

A:
F(A) = 6
M(A) = 1
H(A) = 1/6 = .167

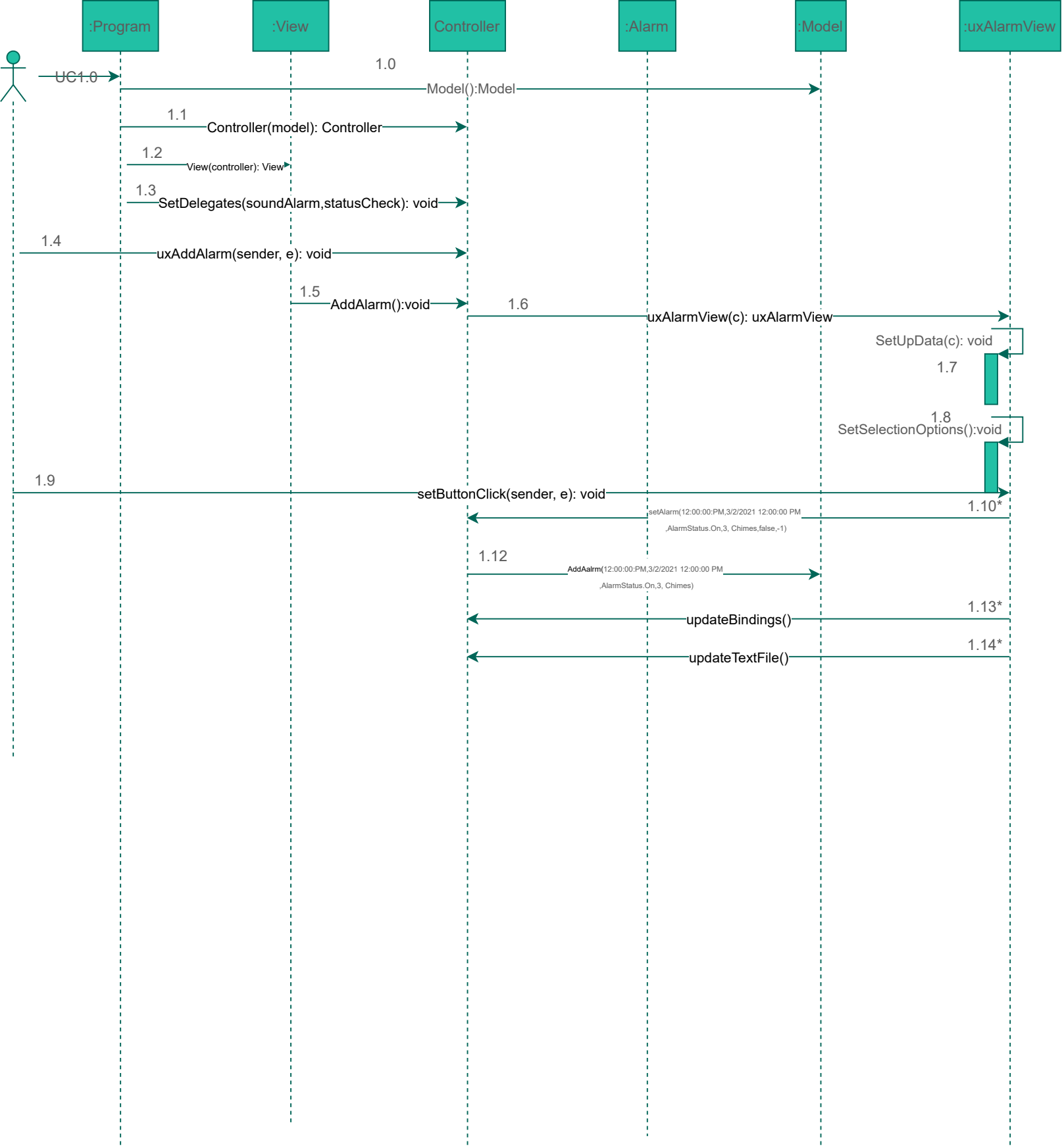
M:
F(M) = 1
M(M) = 2
H(M) = 2/(2*1) = 1

V:
F(V) = 1
M(V) = 12
H(V) = 7/(12*1) = .583

C:
F(C) = 3
M(C) = 13
H(C) = (2 + 2 + 10)/(39) = .359

uX:
F(uX) = 6
M(uX) = 6
H(uX) = (2+2+2+3+2+2)/(6*6) = .361

Class Name Reference:
A = Alarm
C = Controller
M = Model
V = View
uX = uxAlarmView



UC1.0: Set a new alarm with the tine 12:00:00 PM on 3/2/21 that is set to on, has a 3 second snooze period, and a chimes sound

*IMPORTANT NOTE: Method called via Delegate

UC: Edit Alarm