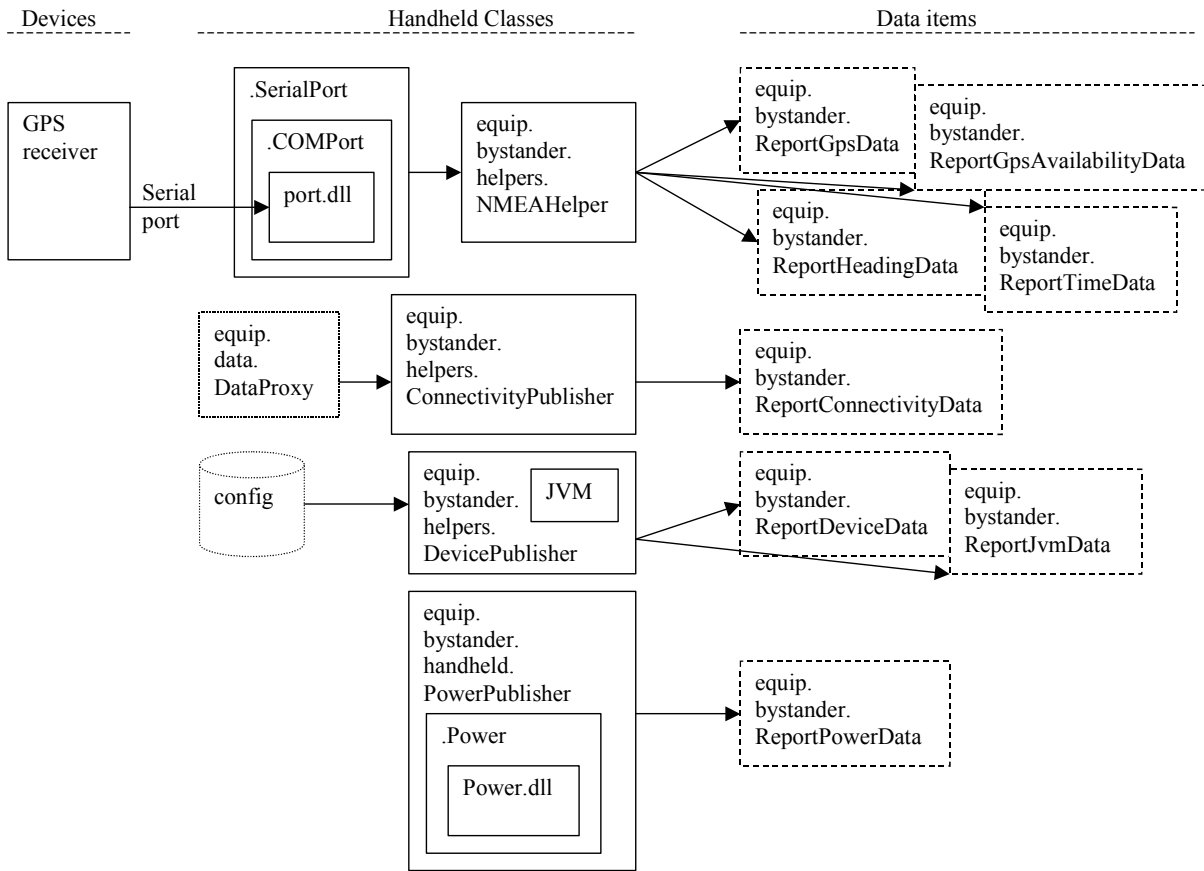


Bystander software platform as of October 2002

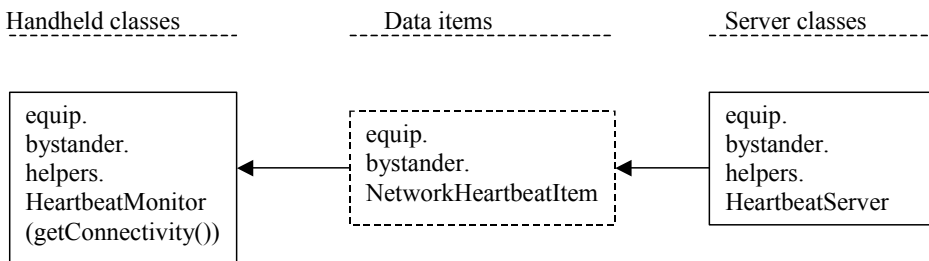
Chris Greenhalgh, 29 Oct.2002

Publishing general and sensor data from the handheld:

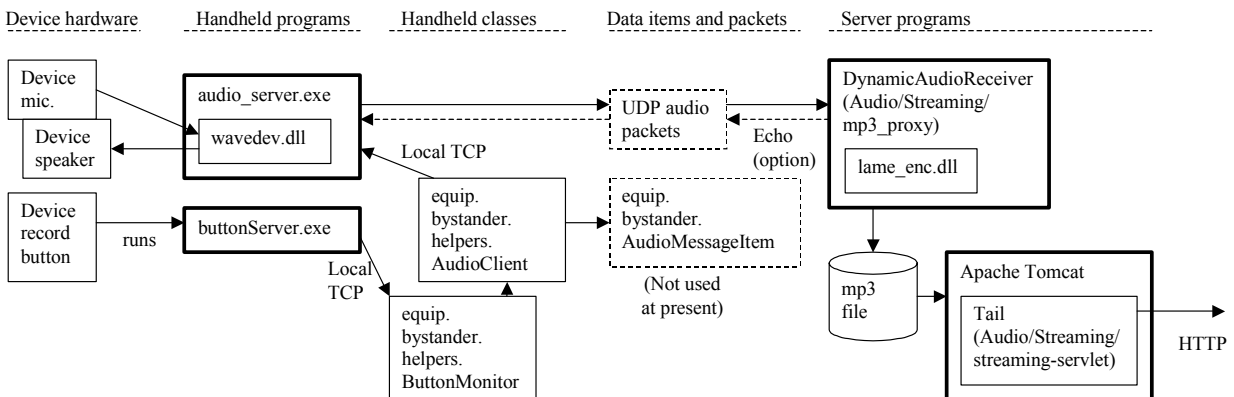


Application-level dataspace heartbeat monitor

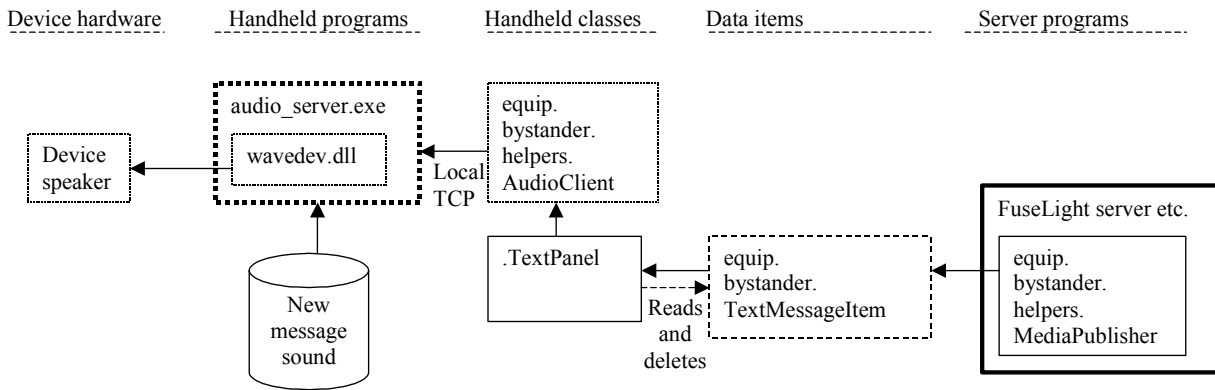
(optional/alternative to ConnectivityPublisher):



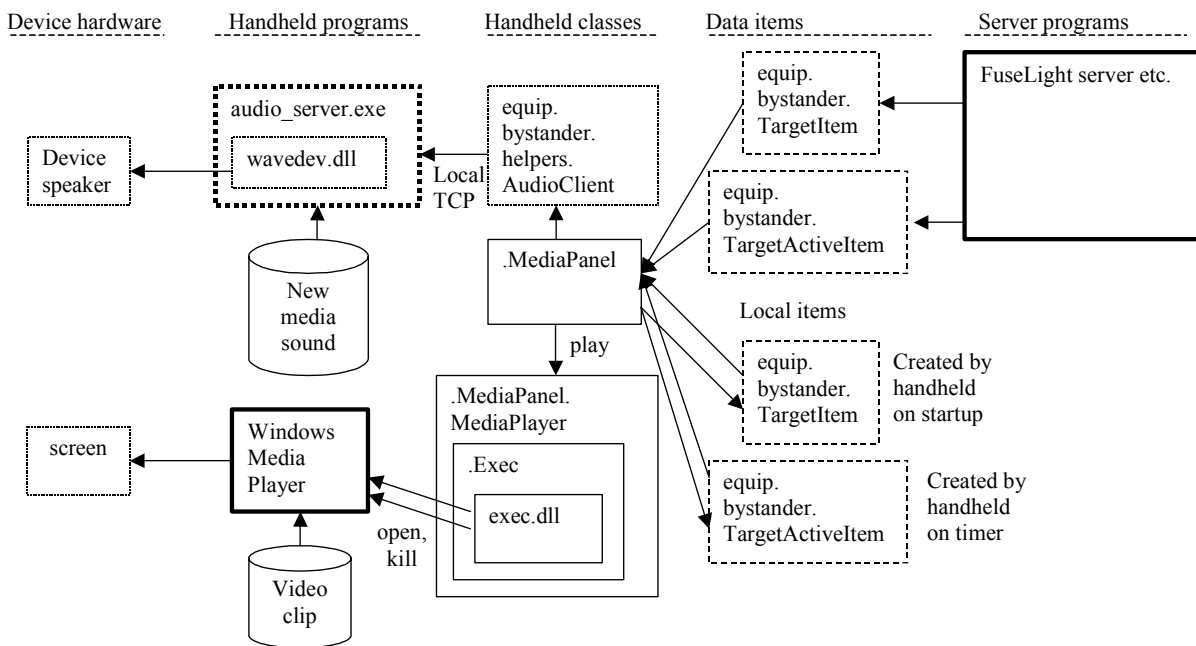
Audio streaming from the handheld:



Text messaging to the handheld:



Local and remote Targets and video viewing:



Code relationships

.ByStanderGui (equip_bystander_handheld/src)

Input files:

BystanderGUI.eqconf

Output files:

console.log

Calls:

singleton equip.config.ConfigManagerImpl

new equip.data.GUIDFactory

new equip.bystander.helpers.RecordDataspace (optional)

output files

ByStanderGui-dslog-...

new equip.bystander.helpers.DevicePublisher

publishes

equip.bystander.ReportDeviceData

equip.bystander.ReportJvmData

call equip.bystander.helpers.GpsHelper.initialise

call equip.data.DataManager.getInstance().getDataspace

(async. activate)

new equip.bystander.helpers.ConnectivityPublisher (optional)

publishes

equip.bystander.ReportConnectivityData

uses

equip.data.DataProxy.getConnectionStrength

new equip.bystander.helpers.NMEAHelper

output files

nmea.log

publishes

equip.bystander.ReportGpsData

equip.bystander.ReportGpsAvailabilityData

equip.bystander.ReportHeadingData

equip.bystander.ReportTimeData (GPS)

uses

InputStream (.SerialPort)

.SerialPort (equip_bystander_handheld/src)

Uses

.COMPort (equip_bystander_handheld/src)

and native library 'port'

new equip.bystander.handheld.PowerPublisher

uses

.Power (equip_bystander_handheld/src) and native library 'Power'

Query WindowsCE power status API

Publishes

equip.bystander.ReportPowerData

new .HeaderPanel

creates

equip.bystander.helpers.HeartbeatMonitor

subscribes to

equip.bystander.NetworkHeartbeatItem

equip.bystander.helpers.AudioClient

extends

Canvas – visual record button

Uses

equip.bystander.helpers.ButtonMonitor

supports

java.net.ServerSocket (for buttonServer)

publishes

equip.bystander.AudioMessageItem

subscribes to

equip.data.ReportGpsData -> owner.currentPosition

equip.data.ReportGpsAvailabilityData -> owner.rmsErrorMetres

equip.data.ReportConnectivityData -> signalFraction

```
    equip.data.ReportPowerData -> capacityFraction
new .MapPanel (equip_bystander_handheld/src)
new .TextPanel (equip_bystander_handheld/src)
  calls
    owner.audio.playSound
  subscribes to
    equip.bystander.MessageItem (Text... and Audio...)
new .MediaPanel (equip_bystander_handheld/src)
  new .MediaPanel.MediaPlayer
    uses
      .Exec (equip_bystander_handheld/src) and native library 'exec'
        Open file by name
        Terminate named top window
    calls
      audio.playSound
  publishes
    equip.bystander.TargetItem (local items)
    equip.bystander.TargetActiveItem (local items)
  subscribes to
    equip.bystander.TargetItem
    equip.bystander.TargetActiveItem
```

```
buttonServer.exe (equip_bystander_handheld/src)
  send char to specific TCP server
```

```
equip.bystander.helpers.HeartbeatServer
  publishes
    equip.bystander.NetworkHeartbeatItem
```

```
audio_server.exe
```

```
FuseLight...
```

```
Shockwave clients...
```

```
Audio encoder...
```