

In Depth: Real Time Stylus

Windows XP
Tablet PC Edition

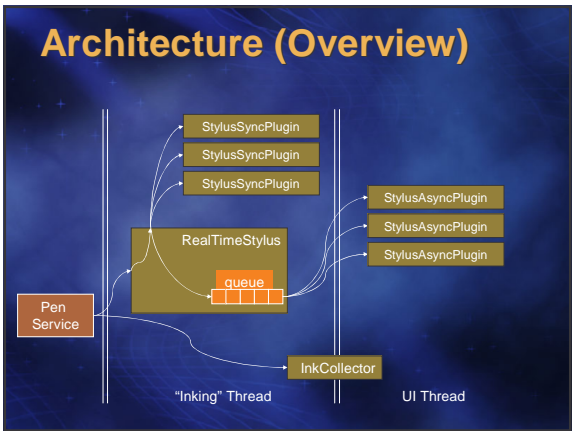
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Agenda

- Real Time Stylus Overview
- Q&A

RealTimeStylus

- Object Model that provides direct access to stylus input *even before it is rendered*
- Allows for the creation of new Real Time components
 - Custom dynamic rendering, gesture recognition, disabled regions, etc.
- Allows for the creation new Ink Collection components
 - Build your own InkOverlay or InkCollector



RealTimeStylus (RTS)

- Routes incoming data into StylusSyncPlugin objects
- Data then routed into output queue

The diagram shows three StylusSyncPlugin boxes on the left. Arrows point from each box to a RealTimeStylus box on the right. Inside the RealTimeStylus box, there is a queue represented by a horizontal row of five small squares.

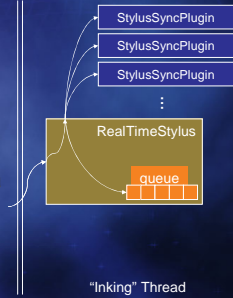
StylusSyncPlugin

- Lightweight object processes incoming data in real time
- Provided in the framework:
 - DynamicRenderer
 - GestureRecognizer
- Can modify data
 - Downstream sync and async plugins see modified data
- Build your own:
 - Examples: Rendering, Recognition, Filtering, Smoothing

The diagram shows three StylusSyncPlugin boxes on the left. Arrows point from each box to a RealTimeStylus box on the right.

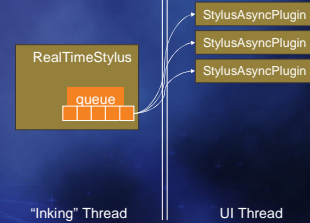
RealTimeQueue

- Fixed size ~10 second capacity
- Accumulates data to be reported asynchronously to AsyncStylusPlugin objects
- Allows for custom data to be added



StylusAsyncPlugin

- Processor intensive object processes data from RTS queue in UI thread
- Provided in the framework:
 - ▾ GestureRecognizer
 - ▾ InkCollection
- Can modify data
 - ▾ Downstream async plugins see modified data
- Build your own:
 - ▾ Examples: InkCollection object



Real Time Stylus Demo

- Shows how the pieces are wired together
- Components Demonstrated
 - ▾ Real-time data manipulation
 - ▾ Use of Gesture Recognizer and Dynamic Renderer
 - ▾ Creation of and Ink Collecting Object

Feature Benefits

- ▾ Smoothly flowing ink
- ▾ Custom rendering of ink (e.g. hardware accelerated)
- ▾ Custom gesture recognition (e.g. more/different gestures)



QUESTIONS?

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