Pre-Page Execution: Request Architecture

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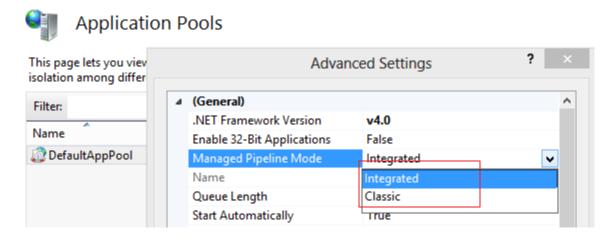


Contents

- The Integrated IIS/ASP.NET Pipeline
- Pre-Page Execution Architecture
- Zoom-in for each stage
 - A word about IIS classic mode (i.e. IIS 6.0 mode)
 - Thus see the advantages of the integrated mode
 - Note: this is not an IIS course, so components are discussed in context of ASP.NET request processing.

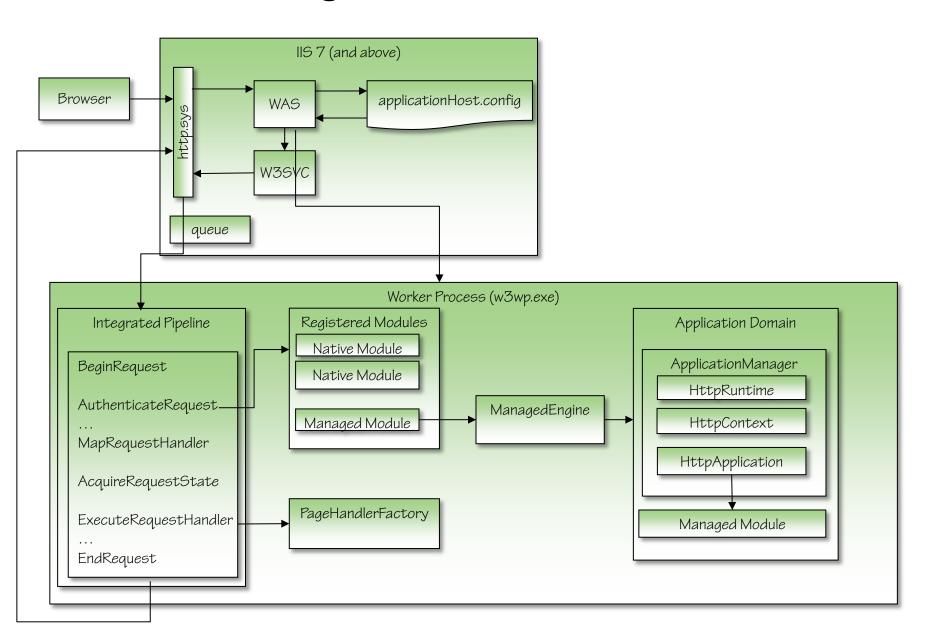
The Integrated IIS/ASP.NET Pipeline

- IIS 7 and above provide two modes of ASP.NET request processing:
 - Integrated mode (default)
 - Classic

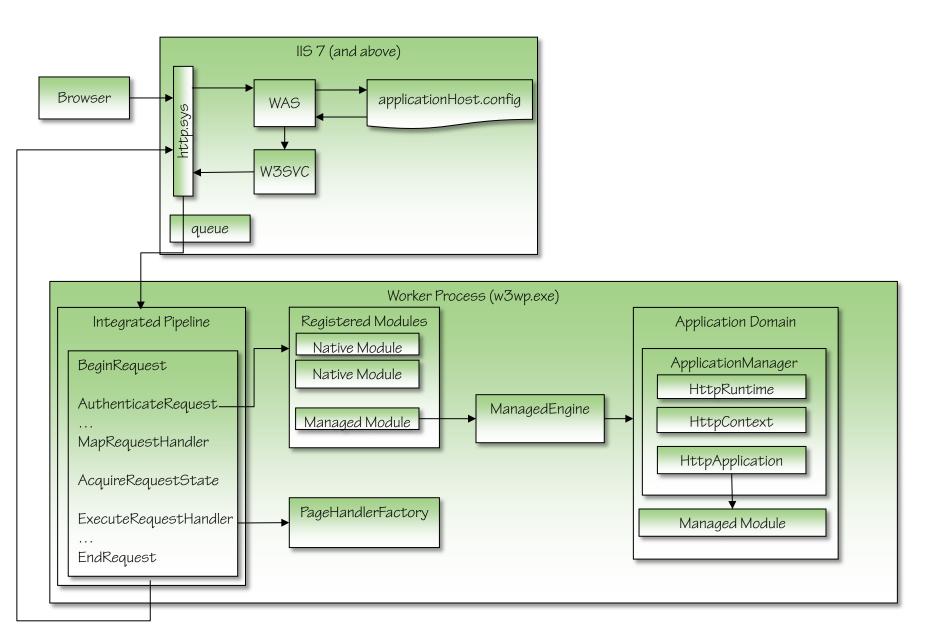


This module is based on the Integrated mode

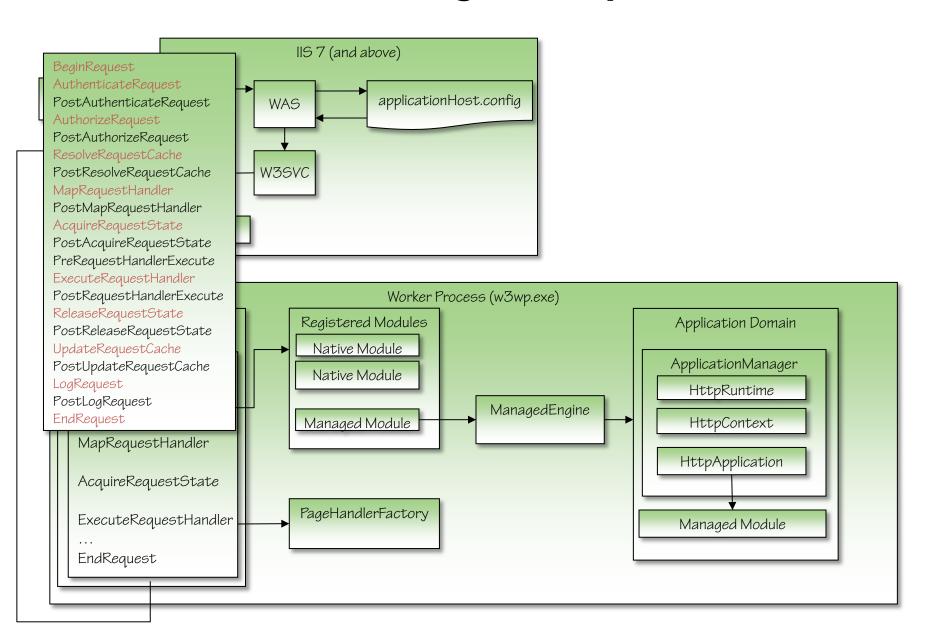
Pre-Page Execution Architecture



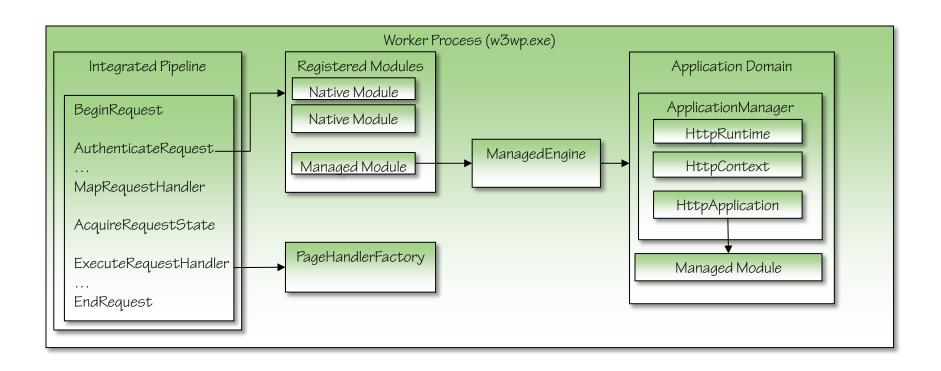
A Request Hits IIS



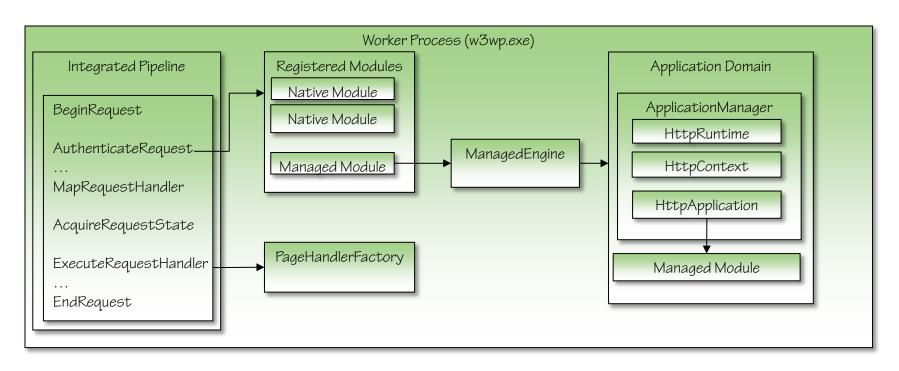
Into the Integrated Pipeline



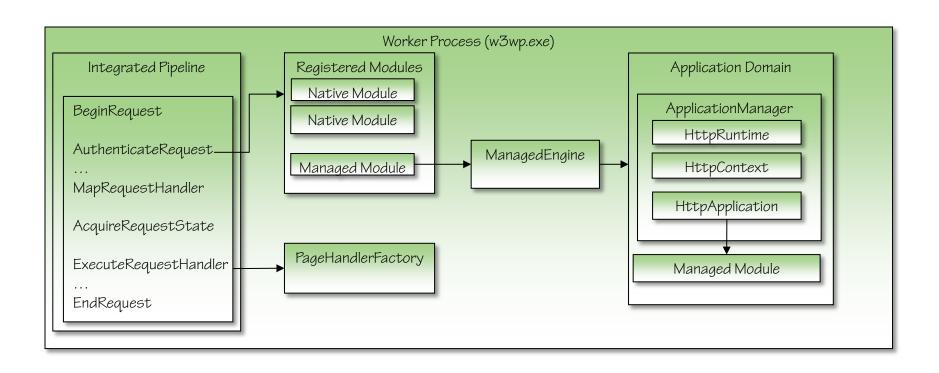
Native and Managed Modules Kick In



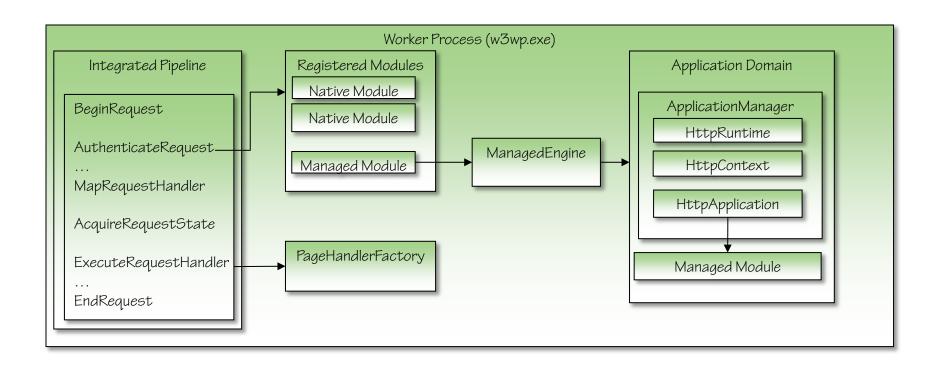
The ManagedEngine Module Triggers ASP.NET Integration



The Application Domain is Created



Request hits the Handler

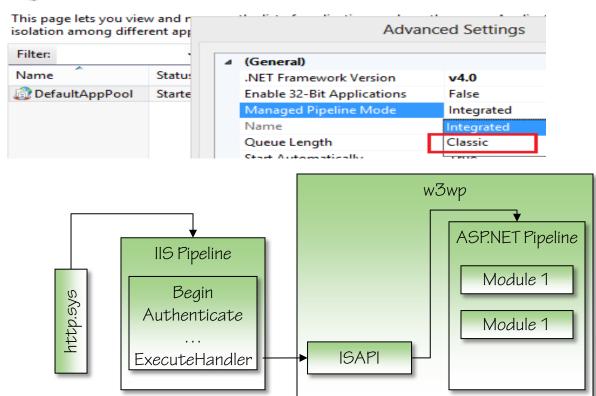


...And the Page Execution Starts

- Finally! The Page Lifecycle beings
- This will be discussed in the next modules

The IIS Classic Mode (IIS 6.0)

Application Pools



- Advantages of the integrated mode:
 - improved performance / no longer need to load the ISAPI extension to handle ASP.NET code
 - Managed Modules can be used to process non-ASP.NET files

Recap and Takeaways

- A request is picked up by http.sys, gets configured by W3SVC, WAS, and applicationHost.config
 - Takeaway #1: svchost.exe is essential for ASP.NET operation
 - Takeaway #2: applicationHost.config holds important config info
- Request reaches the integrated pipeline, which fires events. Native and Custom modules subscribe to these events
 - Takeaway #3: treat module ordering with respect!
- ManagedModule Engine handles ASP.NET integration. Managed modules are executed
 - Takeaway #4: ManagedEngine native module is the most important module
 - Takeaway #5: HttpApplication manages the application
- Requests hits the handler
 - Takeaway #6: compiled aspx page is the actual handler
 - Takeaway #7: page lifecycle starts at this stage