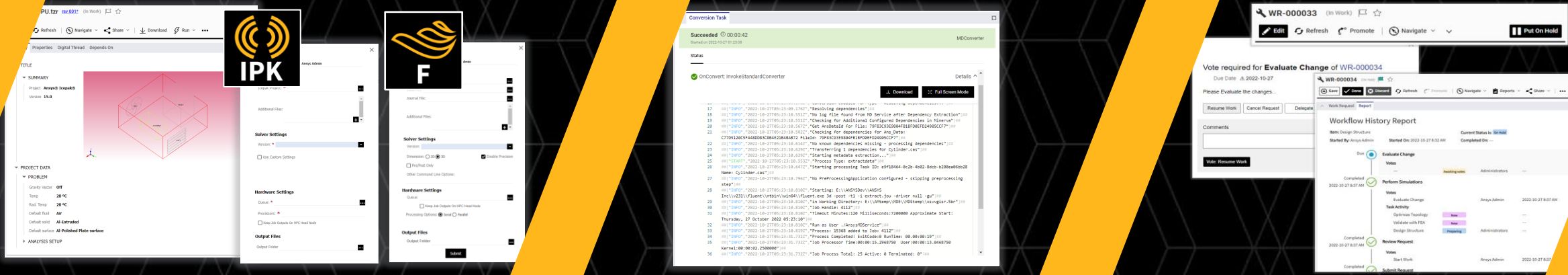


Release 2023 R1 Highlights

Ansys Minerva



Engineering Productivity Through Efficient Simulation Process and Data Management



Icepak and Fluent Support

- ✓ Easier management of Icepak projects with Metadata extraction and Job submission
- ✓ Enhancements on the Fluent integration with local application support
- ✓ **Target Audience:**
 - Electronics Development Teams who rely on **Ansys Icepak** to provide powerful electronic cooling solutions
 - CFD teams that utilize the industry leading **Ansys Fluent** computational fluid dynamics (CFD) solver for thermal and fluid flow analyses

Metadata Extraction Logging

- ✓ Ease troubleshooting of Metadata Extraction Tasks
- ✓ Single UI collecting all the Logs created during Metadata Extraction
- ✓ Collapse/expand sections
- ✓ Collect statistics about MD Tasks (CPU, RAM, Disk Usage, etc.)
- ✓ **Target Audience:** Method and Tools Teams involved with additional product integrations within Ansys Minerva

Business Process Management

- ✓ More capabilities around Change Management
- ✓ Put your ongoing Business Process on hold at any time to account for input changes
- ✓ Better access to the Work Request Report
- ✓ **Target Audience:** Engineering Teams using Business Process Management to orchestrate their simulation activities

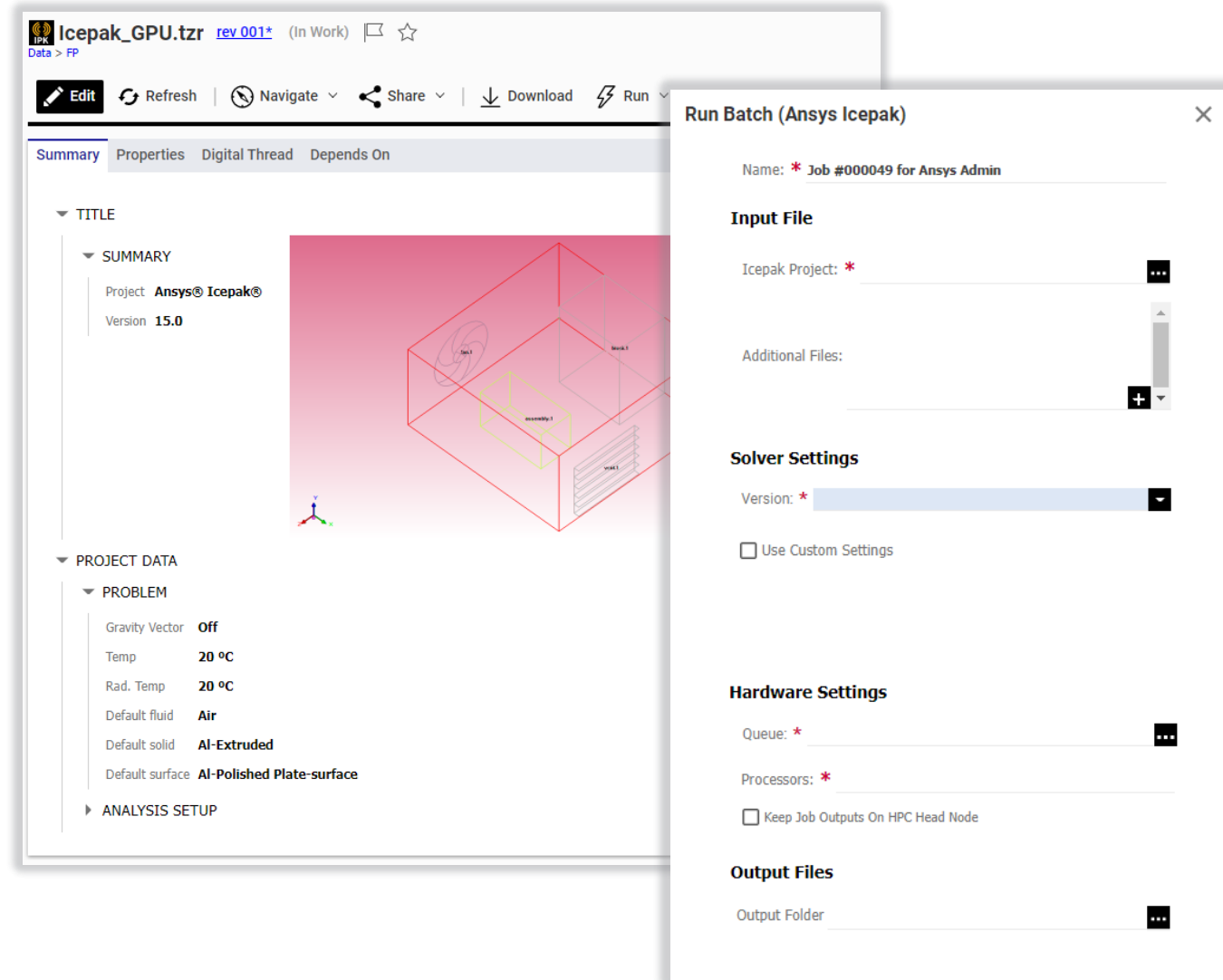
2023 R1: Product Release Detail



/ Icepak Support

Easier management of Icepak Projects

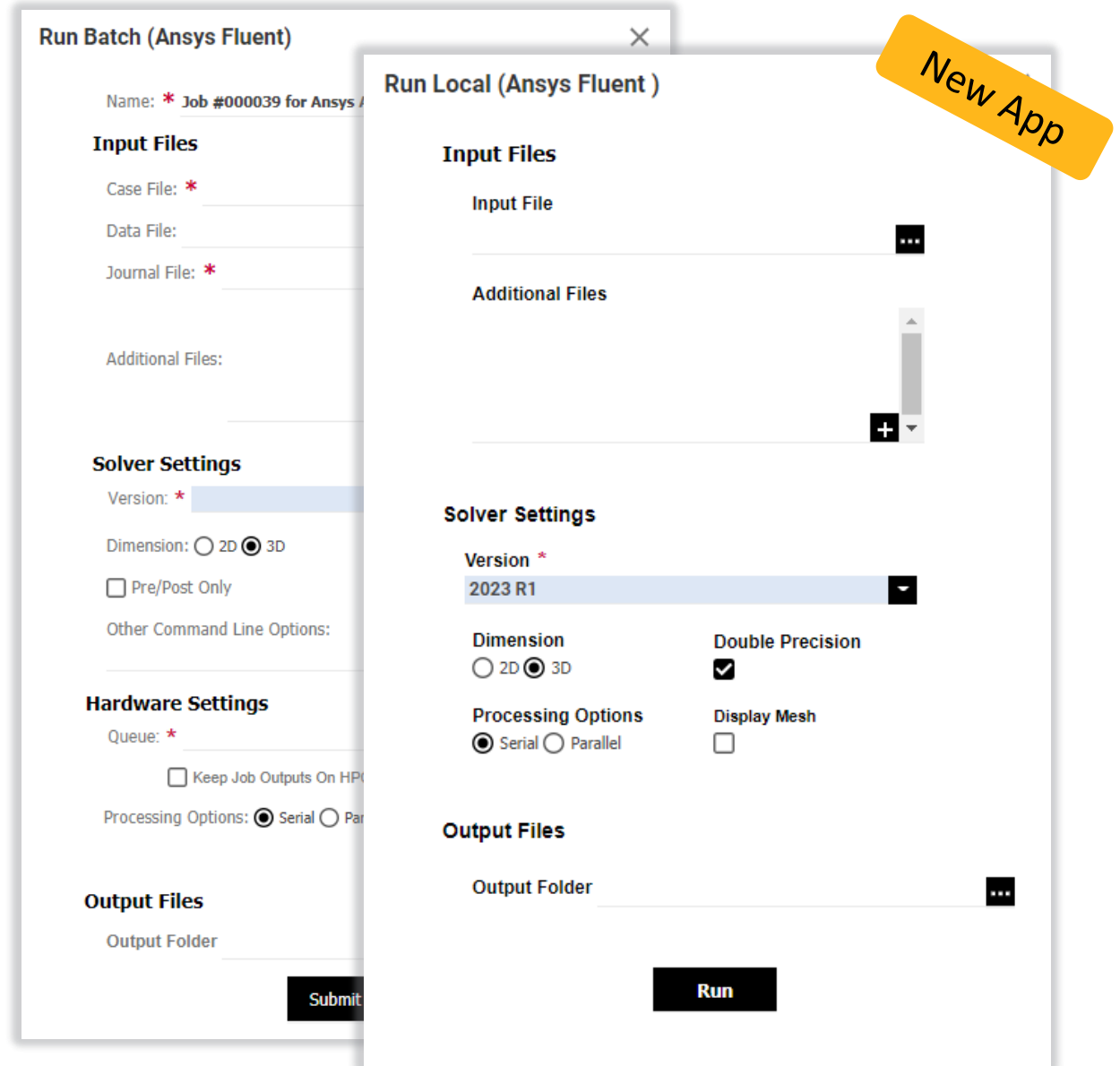
- Icepak Project file support (.tzt)
- Metadata Extraction and Reports available
- Job Submission



Fluent Support Enhancements

Better management of Fluent workflows

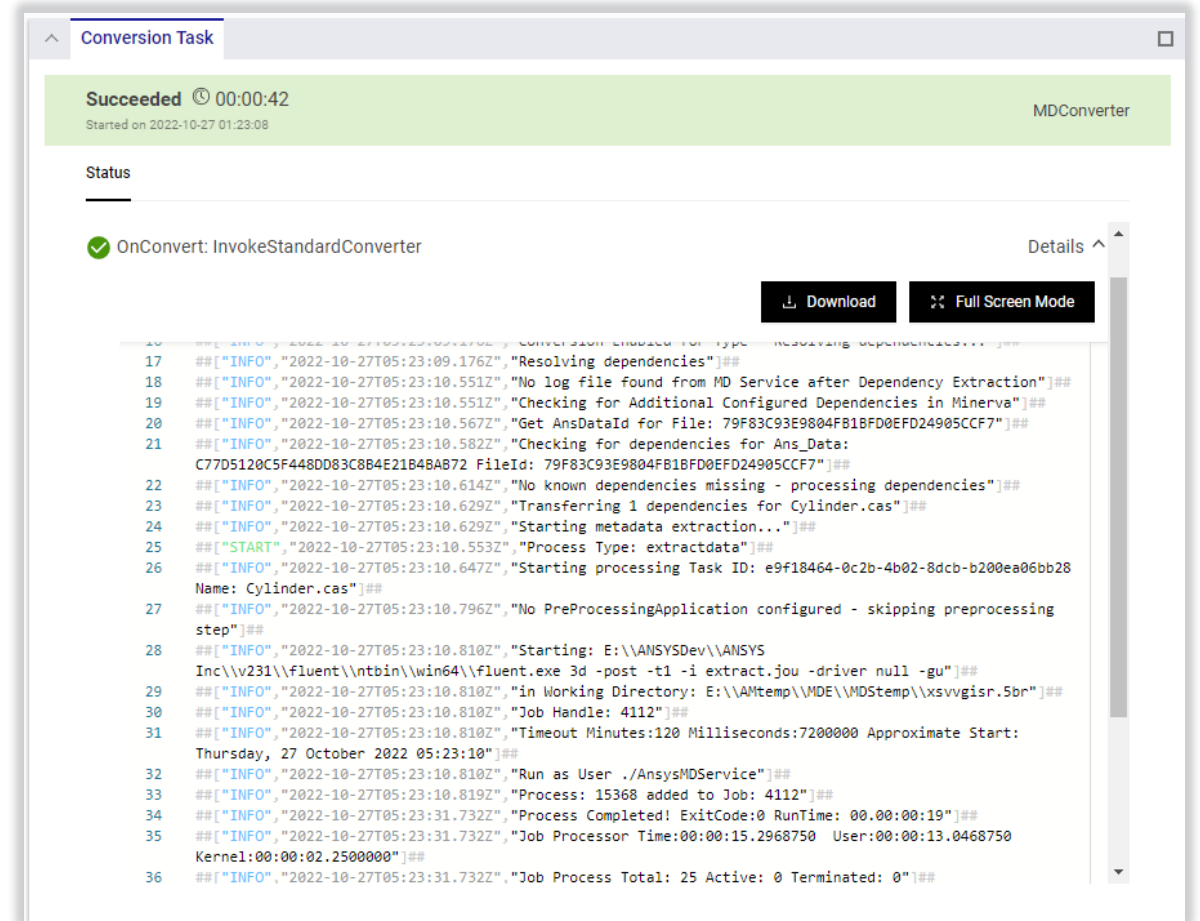
- Already existing:
 - Metadata Extraction for Case and Data
 - Job Submission
- Added in 23R1:
 - Local Application with Parameters



Metadata Extraction Logging

Ease troubleshooting of Metadata Extraction Tasks

- Single UI collecting all the Logs created during Metadata Extraction
- Collapse/expand sections
- Collect statistics about MD Tasks (CPU, RAM, Disk Usage, etc.)



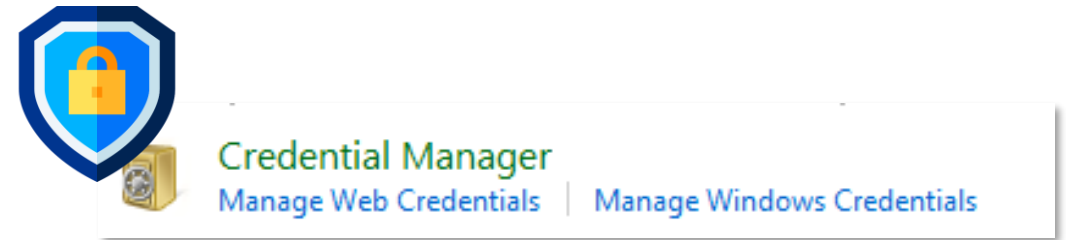
The screenshot displays the MDConverter application window titled "Conversion Task". At the top, a green status bar indicates "Succeeded" with a duration of "00:00:42" and a start time of "2022-10-27 01:23:08". Below this, the "Status" section shows a green checkmark and the text "OnConvert: InvokeStandardConverter". To the right of the status bar are buttons for "Download" and "Full Screen Mode". The main area is a log viewer showing a series of log entries. The log entries include timestamps, log levels (INFO, START), and detailed messages about dependency resolution, file processing, and task completion. The log ends with "Job Process Total: 25 Active: 0 Terminated: 0".

```
17 ##["INFO","2022-10-27T05:23:10.176Z","Resolving dependencies"]##
18 ##["INFO","2022-10-27T05:23:10.551Z","No log file found from MD Service after Dependency Extraction"]##
19 ##["INFO","2022-10-27T05:23:10.551Z","Checking for Additional Configured Dependencies in Minerva"]##
20 ##["INFO","2022-10-27T05:23:10.567Z","Get AnsDataId for File: 79F83C93E9804FB1BFD0EFD24905CCF7"]##
21 ##["INFO","2022-10-27T05:23:10.582Z","Checking for dependencies for Ans_Data:
C77D5120C5F448D083C8B4E21B4B872 FileId: 79F83C93E9804FB1BFD0EFD24905CCF7"]##
22 ##["INFO","2022-10-27T05:23:10.614Z","No known dependencies missing - processing dependencies"]##
23 ##["INFO","2022-10-27T05:23:10.629Z","Transferring 1 dependencies for Cylinder.cas"]##
24 ##["INFO","2022-10-27T05:23:10.629Z","Starting metadata extraction..."]##
25 ##["START","2022-10-27T05:23:10.553Z","Process Type: extractdata"]##
26 ##["INFO","2022-10-27T05:23:10.647Z","Starting processing Task ID: e9f18464-0c2b-4b02-8dcb-b200ea06bb28
Name: Cylinder.cas"]##
27 ##["INFO","2022-10-27T05:23:10.796Z","No PreProcessingApplication configured - skipping preprocessing
step"]##
28 ##["INFO","2022-10-27T05:23:10.810Z","Starting: E:\ANSYSDev\ANSYS
Inc\231\fluent\ntbin\win64\fluent.exe 3d -post -t1 -i extract.jou -driver null -gu"]##
29 ##["INFO","2022-10-27T05:23:10.810Z","in Working Directory: E:\AMTemp\MD\MDStemp\xsvgisr.5br"]##
30 ##["INFO","2022-10-27T05:23:10.810Z","Job Handle: 4112"]##
31 ##["INFO","2022-10-27T05:23:10.810Z","Timeout Minutes:120 Milliseconds:7200000 Approximate Start:
Thursday, 27 October 2022 05:23:10"]##
32 ##["INFO","2022-10-27T05:23:10.810Z","Run as User ./AnsysMDSERVICE"]##
33 ##["INFO","2022-10-27T05:23:10.819Z","Process: 15368 added to Job: 4112"]##
34 ##["INFO","2022-10-27T05:23:31.732Z","Process Completed! ExitCode:0 RunTime: 00.00:00:19"]##
35 ##["INFO","2022-10-27T05:23:31.732Z","Job Processor Time:00:00:15.2968750 User:00:00:13.0468750
Kernel:00:00:02.2500000"]##
36 ##["INFO","2022-10-27T05:23:31.732Z","Job Process Total: 25 Active: 0 Terminated: 0"]##
```

/ Misc

Other enhancements about security and performance

- Performance enhancements on item deletion
- Enhanced security with the Metadata Service Password stored in the Windows Credentials Manager
- Ongoing migration to .Net6 for better security and performance



Work Request Enhancement

Interrupt an ongoing Work Request easily

- At any time, put the Work Request On Hold
- Take appropriate actions and resume or cancel the work
- Data in cloned Task moved to dedicated Branches
- Better accessibility of the Work Request Reports

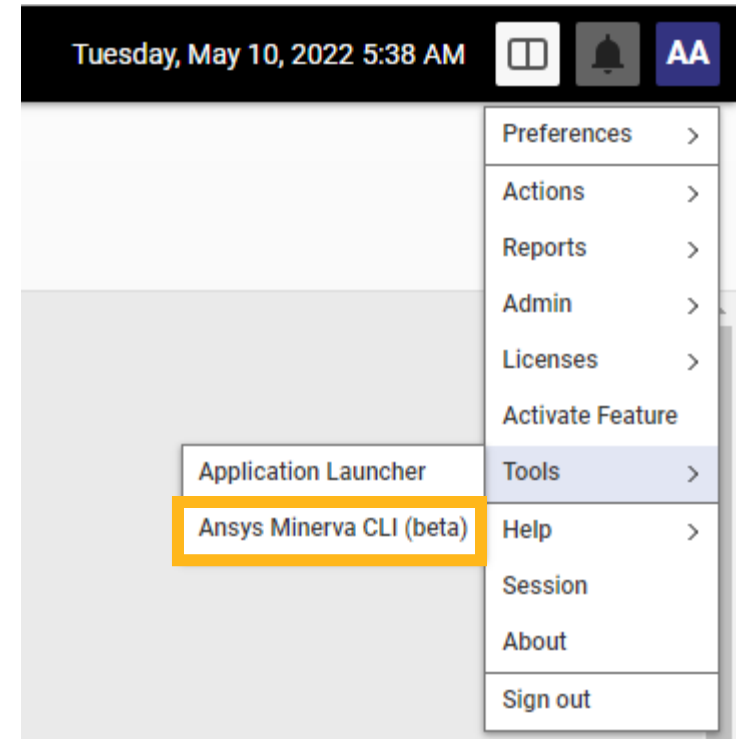
The image displays two overlapping screenshots of the Work Request (WR) interface. The top screenshot shows a Work Request (WR-000033) in the 'In Work' state. The interface includes a header with the request ID, status, and navigation icons (Edit, Refresh, Promote, Navigate, Put On Hold). Below the header, a message states 'Vote required for Evaluate Change of WR-000034' with a due date of 2022-10-27. A 'Please Evaluate the changes...' prompt is followed by buttons for 'Resume Work', 'Cancel Request', and 'Delegate'. A 'Comments' section is visible below.

The bottom screenshot shows the same Work Request (WR-000034) in the 'On Hold' state. The interface includes a header with the request ID, status, and navigation icons (Save, Done, Discard, Refresh, Promote, Navigate, Reports, Share). Below the header, a 'Workflow History Report' is displayed for the item 'Design Structure', started by 'Ansys Admin' on 2022-10-27 8:32 AM. The report shows a vertical timeline of tasks: 'Evaluate Change' (Due), 'Perform Simulations' (Completed 2022-10-27 8:37 AM), and 'Review Request' (Completed 2022-10-27 8:37 AM). The 'Perform Simulations' task is expanded to show a list of activities: 'Evaluate Change' (Voted by Ansys Admin), 'Optimize Topology' (New), 'Validate with FEA' (New), and 'Design Structure' (Preparing).

/ Command Line tool (beta)

Ease integration of 3rd party integration

- First phase of the Generic Framework Connector
- Upload/download files with a command line tool
- Maintain the Digital Thread
- Stage/Unstage
- Release agnostic



 **Ansys**

