Pipeline Model Definition Plugin

Plugin Information

View Pipeline: Declarative on the plugin site for more information.

Older versions of this plugin may not be safe to use. Please review the following warnings before using an older version:

- Script Security sandbox bypass

Declarative Jenkins Pipelines

This plugin requires Jenkins 2.121.1 or later

More Information at jenkins.io

More information is available at jenkins.io.

Changelog

Version 1.3.9 (June 7, 2019)

- JENKINS-57162 - agent dockerfile name/hash should incorporate build args.
- JENKINS-57826 - post on a stage should handle catchError's stageResult as distinct from the status of the whole build.

Version 1.3.8 (April 15, 2019)

- JENKINS-46354 - Don't skip all stages when retrying from top level.

Version 1.3.7 (March 20, 2019)

- JENKINS-52850 - Support SSH private key credentials in environment.
- JENKINS-56402 - Set build result to the logical result in post conditions.
- JENKINS-56544 - failFast option for parallel stages no longer sets build status to ABORTED when other stages are aborted before entering their step execution.

Version 1.3.6 (March 6, 2019)

- JENKINS-56405 - Don't require registry credentials if a registry URL is specified.

Version 1.3.5 (March 1, 2019)

- JENKINS-52744 - Show a meaningful error when an environment variable value references an undefined variable.
- JENKINS-49950 - Allow using Dockerhub credentials without having to specify a registry URL.
- JENKINS-55476 - Don't trigger unsuccessful post condition for successful builds.
- JENKINS-55459 - Make parallel stages that fail fast result in the build being marked as failed, not aborted.

Version 1.3.4.1 (January 8, 2019)

- Fix security vulnerability

Version 1.3.4 (December 10, 2018)

- JENKINS-49997 - Add new unsuccessful post condition
- JENKINS-53734 - Allow use of parallel within top-level sequential stages.
- JENKINS-54919 - Change processing of agent contents to allow references to newly defined parameter default values.
- JENKINS-46894 - Add a new when condition for checking the build's cause.

Version 1.3.3 (November 27, 2018)
Add REST API for Stage Restart functionality
- Fix handling of ! expressions in environment variable resolution.
- Prevent sporadic failure to recognize block-scoped steps, such as timestamps, as valid options.
- Add beforeInput flag for when.
- New option for setting failFast for all parallel stages in a Pipeline.

Version 1.3.2 (August 31, 2018)
- Include post conditions in Directive Generator correctly.
- Include isRestartedRun in when Directive Generator.
- Fix NPE if a when condition like allOf or anyOf has no children.
- Fix tool dropdowns in Directive generator.
- Properly catch/handle Throwable as well as Exception in stage execution.
- Add quietPeriod Declarative option.
- Switch to depending on jackson2-api plugin rather than shading everything Jackson/JSON-related ourselves.
- Make post failure and success for a stage care about whether that stage has an error, rather than the full build's status. This allows a stage within a parallel that does not have any errors but completes after another parallel stage that does have an error (resulting in the build's status now being FAILURE) to fire its post success condition as would be expected.
  - NOTE: this does result in a small change in expected behavior. If you are setting currentBuild.result to FAILURE in a stage and then have a post failure condition for that same stage, without ever actually having a true error or step failure in the stage, the post failure for the stage in question will not fire. post failure conditions on a stage now fire when there's an error in the execution of the stage only, and post success conditions on a stage fire whenever there is no error in the execution of the stage.
  - No change in behavior for any other post condition, or for post outside of stages (including success and failure) is introduced by this.

Version 1.3.1 (June 27, 2018)
- Propagate failures in nested sequential stages to top-level properly.
- Execute post for sequential stage parent in proper context (such as agent)

Version 1.3 (June 14, 2018)
- fix Directive Generator link from multibranch folders.
- Fix 404 on jenkins.io Pipeline Syntax link
- Switch to firing failure after success and unstable, in case those post conditions modify status.
- Fall back to GIT_LOCAL_BRANCH for when branch condition if BRANCH_NAME is not available.
- Convert empty string label for agent to agent any in JSON.
- Add support for nesting sequential groups of stages inside a stage.
- Allow restarting a completed build from any stage which ran in that build, with all inputs (SCM, parameters, etc) preserved, and if the new preserveStashes option has been specified, any stashes from the original build available to the new build.
- Don't swallow errors in post.

Version 1.2.9 (Apr 17, 2018)
- Don't fire failure for aborted/timed-out sh and bat steps.
- Add new cleanup post condition to always run, after every other post condition has run.
- Revert DeclarativeAgentDescriptor.all() signature to unbreak Pipeline Editor.
- Fix when conditions tag and changeRequest in Directive Generator.

Version 1.2.8 (Apr 5, 2018)
- Better uniqueness on Dockerfile tag name.
- Add new equals condition for when.
- Prevent serialization warnings related to ModelASTValue inner classes.
- Add new if condition.
- Add new ContainerPerStage option, which will spin up a fresh container of a docker or Dockerfile top-level agent for each stage, rather than reusing the same container across all stages.
- when conditions for checking if building a git tag or a change request (such as a GitHub pull request).
- Properly support alwaysPull option in top-level agent docker
- Declarative Directive Generator added.

Version 1.2.7 (Jan 29, 2018)
- Improve error messages around bare variables for environment values.
- Fix post change behavior to not treat consecutive runs with any status but SUCCESS as changed.
- Prevent use of BigDecimal to avoid serialization issues.

Version 1.2.6 (Jan 12, 2018)
- Prevent serialization problems with when expression
- Use the agent's directory separator for Dockerfile path.
- Fix execution of post for parallel stages parent.
**Version 1.2.5 (Nov 22, 2017)**

- JENKINS-46597 - Fix serialization errors due to checkout returned environment variables.
- JENKINS-47928 - Don't run post: failure block for skipped parallel container stages after previous stage failures.
- JENKINS-46854 - Better validation of errors in script and expression blocks defined in the editor.
- JENKINS-48115 - Pick workflow-step-api 2.14 to make sure we don't get hosed by bad metasteps.
- JENKINS-37663 - Fix junit 1.22 and later UNSTABLE result check in post by comparing CpsFlowExecution.getResult() as well as Run.getresult().
- JENKINS-46252 - Mark any job that's had a Declarative run with DeclarativeJobAction.

**Version 1.2.4 (Nov 8, 2017)**

- JENKINS-47814 - Stop double-validating contributed validators for post and method calls
- JENKINS-47781 - Truly fix the scooping of triggers, job properties, and build parameters

**Version 1.2.3 (Nov 3, 2017)**

- JENKINS-46403 - Prevent infinite loop on run start in Job DSL-created jobs.
- JENKINS-47421 - Fix issue with loading running builds from earlier versions.
- JENKINS-46597 - Hopefully fix serialization issue with TreeMap.Entry.
- JENKINS-47559 - Skip further validation of non-method when condition, since it's already known to be invalid and can cause NPEs in further validation for no benefit.
- JENKINS-47600 - Properly special-cases \${env.VALUE}\ in environment the same as we handle \$\{VALUE\}\.
- JENKINS-47781 - Narrow scope of Describable resolution for triggers, options, and parameters.

**Version 1.2.2 (Oct 5, 2017)**

- JENKINS-47202 - Fix serialization of environment containing steps.
- JENKINS-47197 - Make sure we don't require Java 8 at runtime.

**Version 1.2.1 (Sept 29, 2017)**

- JENKINS-47106 - Switch to alwaysPull option for docker
- JENKINS-47109 - Add support for failFast for parallel stages
- JENKINS-47193 - Don't break parsing of Jenkinsfile due to class or enum defined in it as well as pipeline block.

**Version 1.2 (Sept 21, 2017)**

Declarative Pipeline runs in progress upon upgrade from versions prior to 1.2 will probably fail on resuming.

- JENKINS-41334 - Parallel definition and execution of stages.
- JENKINS-45198 - When on core 2.60+ with pipeline-scm-step 2.6+ and recent versions of git, subversion, or mercurial plugins, include SCM-provided variables in environment automatically.
- JENKINS-42753 - Rewrite of runtime parser, fixing a bunch of issues with environment, when expression, variable and function behavior consistency, and more.
  - Related tickets:
    - JENKINS-44298 - Usage of variables and functions defined outside the pipeline block can work in when expression again.
    - JENKINS-44482 - Pre-existing environment variables containing backslashes do not have their backslashes discarded.
    - JENKINS-44603 - Usage of variables and functions defined outside the pipeline block work in environment variables again.
    - JENKINS-45636 - Backslashes are correctly escaped when defined in one new environment variable and referenced in another.
    - JENKINS-45637 - Environment variables containing multiple pre-existing environment variables no longer silently fail.
    - JENKINS-45916 - Pre-existing environment variables, such as PATH, can be overridden in the environment directive.
    - JENKINS-44034 - Variable references in environment variable definitions no longer require curly braces.
    - JENKINS-46112 - Logs for error steps visible in Blue Ocean correctly.
    - JENKINS-45981 - environment variables can be configured to have default values, i.e., FOO = FOO ?: "default"
- JENKINS-46065 - Provide an extension point for contributing to Declarative validation.
- JENKINS-46277 - Always do a fresh docker pull, even for agents in stages.
- JENKINS-46064 - New when conditions for referencing the build's changelog.
- JENKINS-44039 - Fixed round-tripping of single-quote multiline script blocks from the editor.
- JENKINS-46544 - Give useful error message on use of bare ${...} outside quotes.
- JENKINS-44497 - Allow use of variables in tool values.
- JENKINS-46547 - Support declaration of pipeline blocks in shared libraries' src/*.groovy files.

Version 1.1.9 (July 25, 2017)
- JENKINS-45081 - Stop erroring out on use of object methods named pipeline outside of a Declarative Pipeline.
- JENKINS-45096 - Properly validate use of a tool without a version.
- JENKINS-42338 - Make sure tools defined at the top-level are installed on stage-level agents.

Version 1.1.8 (July 4, 2017)
- JENKINS-45270 - Fix retry use in options directive.
- JENKINS-43071 - Only require Jenkins.READ permissions for CLI linter.

Version 1.1.7 (June 21, 2017)
- JENKINS-44898 - Workaround for JENKINS-44898 for other plugins implementing WithScript extension points until we've moved to Jenkins core 2.66 or later.

Version 1.1.6 (June 12, 2017)
- JENKINS-44809 - Fix problem causing duplicate JobProperty and related errors.

Version 1.1.5 (June 8, 2017)
- JENKINS-44149 - Properly clean up stale/defunct JobProperty, Trigger and ParameterDefinition left behind upon removal from Jenkinsfile.
- JENKINS-43816 - Make sure we always have a non-null execution before parsing.
- JENKINS-43055 - Get rid of noisy warnings regarding unset heads in Jenkins log.
- JENKINS-44621 - Don't remove JobProperty, Trigger and ParameterDefinition defined outside of the Jenkinsfile.

Version 1.1.4 (May 2, 2017)
- JENKINS-43339 - Properly handle non FAILURE build results from FlowInterruptedException.
- JENKINS-43872 - Escape dollar signs in environment correctly.
- JENKINS-43910 - Allow use of FileCredentials in environment variables.

Version 1.1.3 (Apr 20, 2017)
- JENKINS-43486 - Handle non-String environment values properly.
- JENKINS-43404 - Escaped double quotes within environment values were over-resolved.
- JENKINS-42746 - Escaped backslashes in environment weren't properly escaped at evaluation time.

Version 1.1.2 (Apr 5, 2017)
- JENKINS-42762 - Go back to allowing multiple conditions directly in a when directive.
- JENKINS-42693 - Add additionalBuildArgs parameter for dockerfile.
- JENKINS-42771 - Add + binary expressions in env values.
- JENKINS-43195 - Relocate com.github.fge.* JSON schema classes to allow other uses of different versions of the library.
- JENKINS-41456 - Support validation from multiple named parameters of a DataBoundConstructor with a single Map parameter only.
- Brazilian Portuguese localization! Thanks to kinow and boaglio!
- JENKINS-43137 - Triple quoted strings work again in environment.
- JENKINS-43143 - Parameters are available in environment values again.
- JENKINS-43177 - Scrub env.WHATEVER in environment values for cross-references.
- JENKINS-43013 - Round-robin resolution of environment values means ordering of declaration does not need to be relevant.
- JENKINS-42858 - credentials environment variables are available for reference in environment values, and environment variable values are available for use in credentials strings as well.

Version 1.1.1 (Mar 13, 2017)
- 1.1 was inadvertently built with Java 8 and has errors when run with Java 7. 1.1.1 is a rebuild of 1.1 with the correct Java 7 used.

Version 1.1 (Mar 13, 2017)
- JENKINS-42230 - Move all extension points provided by Declarative into a single new plugin for simpler dependencies.
- JENKINS-42168 - Added validateDeclarativePipeline step for validating Declarative Pipelines from within Pipelines. Meta!
- JENKINS-41503 - Fix behavior of null translation between JSON and Groovy representations.
- JENKINS-42286 - Allow directory separators in Dockerfile file names.
- JENKINS-42470 - Don't require a crumb for the pipeline-model-converter API endpoint.
• JENKINS-38110 - Add a libraries directive for specifying shared libraries to load in to the build.
• JENKINS-41118 - Support custom workspaces.
• JENKINS-42473 - Don't use parse results from any source but the Jenkinsfile.
• JENKINS-41185 - Support custom workspaces.
• JENKINS-42551 - Reject String values in JSON that would lead to invalid Groovy syntax, and reject any JSON that converts to invalid Groovy syntax generally.
• JENKINS-42550 - Properly point to bad top-level entries in validation.
• JENKINS-41748 - Properly handle validation of -> String | int
• JENKINS-41900 - Add support for anyOf, allOf and not when conditions contain other when conditions.
• JENKINS-42498 - Fix when/environment serialization error when XStream serialization is used behind the scenes.
• JENKINS-42039 - Add a Declarative option for "treat unstable as failure".
• JENKINS-42226 - Prevent NullPointerException when a null value is used for environment condition.

Version 1.0.2 (Feb 21, 2017)

• JENKINS-42027 - Global configuration for Declarative-specific Docker settings (label, registry) were not persisting across restarts.
• JENKINS-41605 - Auto-checkout from SCM in per-stage agents if they're not reusing the same node block as the top-level agent.
• JENKINS-41900 - Move "should I do checkout?" logic around for simpler code in extensions of Declarative agents.
• JENKINS-41518 - Add validation of environment variable names to be valid Java identifiers - only relevant for JSON->Jenkinsfile conversion since this would already have shown up as a compilation error in a Jenkinsfile.
• JENKINS-42550 - Properly point to bad top-level entries in validation.
• JENKINS-41748 - Allow cross referencing of variables in environment section to actually work.
• JENKINS-41890 - Make sure env.WORKSPACE can be referenced in environment section properly.

Version 1.0.1 (Feb 10, 2017)

• JENKINS-41911 - Shade JSON schema-related dependencies to avoid issues with conflicting library versions when certain other plugins (such as jackson2-api) are installed.

Version 1.0 (Feb 1, 2017)

• First non-beta release. No changes from 0.9.

Version 0.9.1 (still Beta 3) (Jan 27, 2017)

• JENKINS-41490, JENKINS-41491 - Fixing JSON support for nested tree steps and validation of certain tree steps.
• JENKINS-41518 - Add validation of environment variable names to be valid Java identifiers - only relevant for JSON->Jenkinsfile conversion since this would already have shown up as a compilation error in a Jenkinsfile.
• JENKINS-41950 - Properly report errors outside stages.
• JENKINS-41645 - Better validation for non-binary expressions in environment block.
• JENKINS-42039 - Add a Declarative option for "treat unstable as failure".
• JENKINS-42226 - Prevent NullPointerException when a null value is used for when branch condition.

Version 0.9 (Beta 3) (Jan 25, 2017)

• FINAL BETA - if a blocker bug is discovered before 1.0 is released, additional point releases may be done before 1.0.
• JENKINS-40984 - Always evaluate all possible post conditions even if an earlier one fails.
• JENKINS-39684 - Allow configuration of registry URL and credentials for docker and dockerfile agent types.
• JENKINS-40866 - Allow per-stage agent configuration of docker and dockerfile to run on the same node as the top-level node, so that you can reuse the workspace.
• JENKINS-41050 - Perform SCM checkout on raw node first even if we're using docker or dockerfile.
• JENKINS-41243 - Speeding up tagging of synthetic stages for improved UX in Blue Ocean.

Version 0.8.2 (still Beta 2) (Jan 12, 2017)

• JENKINS-41012 - when branch and environment conditions did not actually work. Fixed.
• JENKINS-41012 - Fixing an issue with validation/parsing outside the context of a run.

Version 0.8.1 (still Beta 2) (Jan 10, 2017)

• Fixing compatibility warning to say compatible since 0.8.

Version 0.8 (Beta 2) (Jan 10, 2017)

• JENKINS-40418 - Fix previously-not-running validation for triggers, parameters and properties.
• JENKINS-40337 - Rename properties to options and add the first Declarative-specific option, skipDefaultCheckout.
• JENKINS-40462 - Get rid of wrappers section, move wrappers like timeout and retry into options section.
• JENKINS-40580 - Quote parallel branch names to make sure they're valid.
• JENKINS-40642 - Add additional default imports so that things like @Library and @NonCPS work.
• JENKINS-40239 - Add descriptions for build conditions.
• JENKINS-40393 - Internationalize error messages!
• JENKINS-40524 - Reworked agent syntax to be more extensible and consistent.
• JENKINS-40370 - Improved when syntax and helpers.

Version 0.7.1 (still Beta 1) (Dec 13, 2016)
• Re-spinning release due to a mixup that resulted in one of the sub-plugins not ending up in the Update Center.

Version 0.7 (Beta 1) (Dec 13, 2016)

• JENKINS-39134 - Fix issue with Guice and resuming a build within a script block.
• JENKINS-38153 - Use the new TagsAction class to mark skipped stages so that Blue Ocean can render them accurately.
• JENKINS-39923 - Add new jenkins-cli command for listing a Declarative Jenkinsfile.
• JENKINS-40136 - Properly allow use of failFast with parallel.
• JENKINS-40226 - Make sure non-stage failures still trigger post failure conditions.

Version 0.6 (Nov 17, 2016)

• JENKINS-39216 - Add dockerfile agent backend, auto-building a Dockerfile and running the build in the resulting image.
• JENKINS-39631 - Fix error status for steps within stages.
• JENKINS-37781 - Add conditional execution of individual stages via the when section.
• JENKINS-39394 - Removing notifications completely, renaming postBuild to post for consistency with post-stage actions.
• JENKINS-39799 - Fix a bug with invalid post contents.

Version 0.5 (Nov 2, 2016)

• JENKINS-37823 - wrappers section for wrapping the entire build in a block-scoped step, like retry or timeout.
• JENKINS-38433 - agent backends are now pluggable.
• JENKINS-39245 - Added environment section support in stages.
• JENKINS-39244 - Added tools section support in stages.
• JENKINS-38993 - Deterministic order for post-build/stage condition execution.
• JENKINS-39011 - Properly error out if the pipeline step is present but not at the top-level.
• JENKINS-39109 - Add a configuration option for what label to use for docker agents.
• JENKINS-38865 - Split the AST into a separate plugin so others can depend on it without pulling everything in.
• JENKINS-38331 - Per-stage configuration for agent.
• JENKINS-37792 - Post-stage actions added.

Version 0.4 (Oct 11, 2016)

• 0.3 was inadvertently built with Java 8 - so a new release is needed.
• JENKINS-37824 - Support for job properties, triggers and build parameters.

Version 0.3 (Oct 10, 2016)

• JENKINS-38818 - Correctly escape string constants when generating groovy from AST
• JENKINS-38564 - API to convert json step blob to step syntax (and back) - one step at a time
• JENKINS-37789 - Use isLiteral instead of isConstant
• JENKINS-38426 - Allow non-literal expressions for environment variable values.
• JENKINS-38242 - Allow specifying arguments for Docker.
• JENKINS-38152 - Expose the execution model on the WorkflowRun.
• JENKINS-37932 - Add agent any to replace agent label:"".
• JENKINS-38097 - Execute empty named stages for any planned stages after a stage fails so that execution model and actual execution match up.

Version 0.2 (Sept 8, 2016)

• JENKINS-37897 - switch to block-scoped stages and add synthetic stages for notifications and postBuild.
• JENKINS-37828 - Properly reject mixes of parallel and other steps.
• JENKINS-37928 - Properly detect sections without values.
• JENKINS-38047 - Allow multiple unnamed parameters in declarative subset.

Version 0.1 (Aug 30, 2016)

• Initial beta release. Functional but limited.