

Package: nirs4all (via r-universe)

June 12, 2026

Title Portable nirs4all Aggregate Binding

Version 0.1.0

Description Aggregates the nirs4all formats, IO, datasets, methods, 'dag-ml', and 'dag-ml-data' language bindings into one portable package surface without reimplementing their parsing, numerical, or pipeline logic. The aggregated engines remain the source of truth and are delegated to at run time.

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URL <https://nirs4all.org>, <https://github.com/GBeurier/nirs4all-lite>

BugReports <https://github.com/GBeurier/nirs4all-lite/issues>

Depends R (>= 4.1)

Imports jsonlite, yaml

Suggests nirs4allformats, nirs4allio, nirs4alldatasets, n4m, dagmldata

Additional_repositories <https://gbeurier.r-universe.dev>

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Repository <https://gbeurier.r-universe.dev>

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nirs4all-package	<i>Portable nirs4all Aggregate Binding</i>
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Description

Aggregates the low-level nirs4all bindings without reimplementing parsing, dataset assembly, DAG orchestration, or numerical methods.

formats	<i>Access upstream nirs4all domains</i>
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Description

Convenience accessors for the upstream domains exposed by the aggregate **nirs4all** R package.

Usage

formats()

io()

datasets()

methods()

dag_ml()

dag_ml_data()

Value

The loaded namespace for the requested upstream domain.

```
nirs4all_load_pipeline
```

Load a nirs4all JSON/YAML pipeline definition

Description

Parses the same pipeline definition envelope as full Python `nirs4all.pipeline.PipelineConfigs`, restricted to the current portable operator subset. This validates syntax and operator declarations only; it does not execute the pipeline.

Usage

```
nirs4all_load_pipeline(source)
```

```
nirs4all_portable_class_names(definition)
```

Arguments

source	A direct step list, mapping with pipeline or steps, JSON/YAML path, or JSON/YAML text.
definition	A parsed pipeline definition or step list.

Value

`nirs4all_load_pipeline()` returns a `nirs4all_pipeline_definition` list. `nirs4all_portable_class_names()` returns class names in traversal order.

```
nirs4all_require
```

Load an upstream nirs4all binding

Description

Loads an upstream binding by key or fails with a diagnostic listing the tried candidate packages.

Usage

```
nirs4all_require(name)
```

Arguments

name	Upstream key such as "formats" or "methods".
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Value

The loaded namespace for the first installed candidate package.

nirs4all_run_portable_pipeline

Execute portable nirs4all pipeline fixtures

Description

Executes the portable Kennard-Stone, SNV, Savitzky-Golay, and PLS subset by delegating to the installed n4m methods R binding. The aggregate does not implement numerical kernels itself.

Usage

```
nirs4all_run_portable_pipeline(source, dataset)
```

```
nirs4all_parse_execution_plan(source)
```

Arguments

source	A JSON/YAML path, JSON/YAML text, pipeline list, or normalized pipeline definition accepted by <code>nirs4all_load_pipeline()</code> .
dataset	List containing X , y , and optionally rows/cols or <code>n_samples/n_features</code> . Flat X is interpreted as row-major.

Value

`nirs4all_run_portable_pipeline()` returns a list with the same contract as the Python and WASM bindings: `name`, `rows`, `cols`, `split`, `preprocessing`, `variants`, `selected`, and `targets`. `nirs4all_parse_execution_plan()` returns the parsed execution subset.

nirs4all_upstreams *List nirs4all upstream bindings*

Description

Returns the upstream binding registry used by the R aggregate package.

Usage

```
nirs4all_upstreams()
```

Value

A data frame with upstream keys, availability flags, candidate package names, and roles.

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