root

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```
file: example.ecl <tex/example.ecl.tex> Basic Example with:
    file: example_2.ecl <tex/example_2.ecl.tex> Basic Inheritance documentation: mod_3 inherits both
mod_1 and mod_2
    file: example_7.ecl <tex/example_7.ecl.tex> Basic Type Example
    file: example_11.ecl <tex/example_11.ecl.tex>
    file: example_3.ecl <tex/example_11.ecl.tex>
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    dir: intest <tex/intest/pkg.toc.tex>
```

IMPORTS

DESCRIPTIONS

MODULE: example

Basic Example with: records, interface, function, modules, transform, embed, macros and functionmacro

```
1. rec_1
  2. rec 2
  3. interface\_ex
  4. func_1
  5. func 2
  6. mod_1
  7. mod_2
  8. cpp_1
  9. funcmacro_1
 10. macro 1
 11. macro_2
RECORD: rec 1
RECORD : rec_2
INTERFACE: interface ex
  1. iface_v3
ATTRIBUTE: STRING25 iface_v3
FUNCTION: func_1(REAL8 x, STRING25 y)
FUNCTION: DATASET(rec_2) func_2(DATASET(rec_1) d)
MODULE: mod_1(REAL8 a)
  1. pi_w
```

 ${\bf ATTRIBUTE: pi_w}$

 $MODULE : mod_2$

1. pi_wo

 ${\bf ATTRIBUTE: pi_wo}$

EMBED : DATA cpp_1(REAL8 varcpp)

MACRO : funcmacro_1(num)

MACRO: macro_1(num_1, num_2)

MACRO: macro_2

IMPORTS

DESCRIPTIONS

MODULE: example_2

Basic Inheritance documentation : mod_3 inherits both mod_1 and mod_2 . Inherits $v2_m1$, $v2_m2$, Overrides $v1_m1$, new locals $v2_m3$. Interface Inheritance : mod_4 inherits interface iface_1, overrides $v1_{i1}$

```
1. rec 1
  2. rec_2
  3. rec_3
  4. \mod_1
  5. mod_2
  6. mod_3
  7. iface_1
  8. mod_4
RECORD: rec\_1
RECORD : rec_2
RECORD : rec_3
MODULE : mod_1
  1. v1_m1
  2. v2_m1
ATTRIBUTE : real8 v1_m1
ATTRIBUTE : v2\_m1
MODULE : mod_2
  1. v1_m1
  2.\ v2\_m2
```

ATTRIBUTE: v1_m1

ATTRIBUTE: v2_m2

 $MODULE : mod_3$

- 1. v2_m1
- 2. v2_m2
- 3. v1_m1
- 4. v2_m3

 $ATTRIBUTE : v2_m1$

INHERITED: True

 $ATTRIBUTE : v2_m2$

 $\mathbf{INHERITED}: \mathbf{True}$

ATTRIBUTE: v1 m1

 $\mathbf{OVERRIDE}: \mathrm{True}$

 $ATTRIBUTE : v2_m3$

INTERFACE : iface_1

1. v1_i1

ATTRIBUTE : real8 v1_i1

 $MODULE : mod_4$

- 1. v1_i1
- 2. v2_m4

ATTRIBUTE: v1_i1

 $\mathbf{OVERRIDE}: \mathbf{True}$

 $ATTRIBUTE : STRING20 v2_m4$

$\underline{\mathbf{IMPORTS}}$

DESCRIPTIONS

 $MODULE: example_7$

Basic Type Example Source Code copied from ECL Documentation

1. R

RECORD : R

IMPORTS

- \bullet Inintest
- Example_3
- \bullet intest.Example_3
- $\bullet \ intest.inintest.Example_3 \\$
- $\bullet \ \ In intest. Example_3$

DESCRIPTIONS

```
MODULE: example_11
1. Example_3

MODULE: Example_3

OVERRIDE: True

1. mod_1

MODULE: mod_1

1. v2_m1_ex3
```

 $ATTRIBUTE: v2_m1_ex3$

test

IMPORTS

DESCRIPTIONS

MODULE: test

test module

IMPORTS

DESCRIPTIONS

MODULE: Example_3

Documentation Testing Multiline Title. link@myspace.com Sentence 1 blablabla bbblaaaa

Sentence 2

blablalbla bbbblaaaaa

bblaaaaaaaaa

Parameter : first ||| okay_1 Parameter : second ||| okay_2 Parameter : third ||| okay_3

 $\begin{aligned} & \textbf{Field}: f1 \mid\mid\mid oka_f1 \\ & \textbf{Field}: f2 \mid\mid\mid oka_f2 \\ & \textbf{Return}: rec_1 \end{aligned}$

 $\mathbf{See}: example_1.mod_1$

1. mod_1

$MODULE : mod_1$

- $1.\ v1_m1$
- 2. v2_m1_ex3
- 3. long_name

ATTRIBUTE: v1_m1

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 $ATTRIBUTE: v2_m1_ex3$

DOC Test 3 No Period title

FUNCTION: long_name(DATASET({REAL8 u}) X, DATASET({REAL8 u}) IntW, DATASET({REAL8 u}) Intb, REAL8 BETA=0.1, REAL8 sparsityParam=0.1, REAL8 LAMBDA=0.001, REAL8 ALPHA=0.1, UNSIGNED2 MaxIter=100)

Math

IMPORTS

DESCRIPTIONS

MODULE: Math

- 1. Infinity
- 2. NaN
- 3. isInfinite
- 4. isNaN
- 5. isFinite
- 6. FMod
- 7. FMatch

ATTRIBUTE: REAL8 Infinity

Return a real "infinity" value.

ATTRIBUTE: REAL8 NaN

Return a non-signalling NaN (Not a Number)value.

FUNCTION: BOOLEAN isInfinite(REAL8 val)

Return whether a real value is infinite (positive or negative). **Parameter**: val ||| The value to test.

FUNCTION: BOOLEAN isNaN(REAL8 val)

Return whether a real value is a NaN (not a number) value. **Parameter**: val ||| The value to test.

FUNCTION: BOOLEAN isFinite(REAL8 val)

Return whether a real value is a valid value (neither infinite not NaN).

 $\mathbf{Parameter}: \mathrm{val} \mid\mid\mid \mathrm{The} \; \mathrm{value} \; \mathrm{to} \; \mathrm{test}.$

FUNCTION: REAL8 FMod(REAL8 numer, REAL8 denom)

Returns the floating-point remainder of numer/denom (rounded towards zero). If denom is zero, the result depends on the -fdivideByZero flag: 'zero' or unset: return zero. 'nan': return a non-signalling NaN value 'fail': throw an exception

 $\begin{array}{ll} \textbf{Parameter}: \ numer \ ||| \ The \ numerator. \\ \textbf{Parameter}: \ denom \ ||| \ The \ numerator. \end{array}$

FUNCTION: BOOLEAN FMatch(REAL8 a, REAL8 b, REAL8 epsilon=0.0)

Returns whether two floating point values are the same, within margin of error epsilon.

Parameter: a ||| The first value.

Parameter: b ||| The second value.

 ${\bf Parameter}$: epsilon ||| The allowable margin of error.

IMPORTS
DESCRIPTIONS

IMPORTS

 $\bullet \ Inintest.Example_3.mod_1$

DESCRIPTIONS

```
MODULE: example_4
```

Example : Inheritance across files mod_1 in Example_4 inherits mod_1 in Example_3

1. mod_1

 $MODULE : mod_1$

1. v2_m1_ex3

 $2.\ v2_m1_ex4$

 $ATTRIBUTE : v2_m1_ex3$

INHERITED: True

 $ATTRIBUTE: v2_m1_ex4$

$\underline{\mathbf{IMPORTS}}$

 \bullet intest

DESCRIPTIONS

 $MODULE: example_10$

1. mod_1

 $MODULE : mod_1$

 $\mathbf{INHERITED}: \mathrm{True}$

$\underline{\mathbf{IMPORTS}}$

- example_8
- $\bullet \ example_8.mod_1$

DESCRIPTIONS

Inintest

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 ${\it file: Example_3.ecl.} {\it tex/Inintest/Example_3.ecl.} {\it tex>}$

$In intest. Example _3$

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DESCRIPTIONS

MODULE : Example_3
1. mod_1

MODULE : mod_1
1. v2_m1_ex3

 $ATTRIBUTE: v2_m1_ex3$

intest

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```
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    file: example_3.ecl <tex/intest/example_3.ecl.tex> Example: Inheritance across files
    file: example_7.ecl <tex/intest/example_7.ecl.tex> Basic Type Example
    file: example_11.ecl <tex/intest/example_11.ecl.tex>
    file: example_5.ecl <tex/intest/example_5.ecl.tex>
    file: example_4.ecl <tex/intest/example_4.ecl.tex> Example: Inheritance across files
    file: example_9.ecl <tex/intest/example_9.ecl.tex>
    dir: in1intest <tex/intest/in1intest/pkg.toc.tex>
    dir: inintest <tex/intest/inintest/pkg.toc.tex>
```

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DESCRIPTIONS

MODULE: example_2

Basic Inheritance documentation : mod_3 inherits both mod_1 and mod_2 . Inherits $v2_m1$, $v2_m2$, Overrides $v1_m1$, new locals $v2_m3$. Interface Inheritance : mod_4 inherits interface iface_1, overrides $v1_{i1}$

```
1. rec 1
  2. rec_2
  3. rec_3
  4. \mod_1
  5. mod_2
  6. mod_3
  7. iface_1
  8. mod_4
RECORD: rec\_1
RECORD : rec_2
RECORD : rec_3
MODULE : mod_1
  1. v1_m1
  2. v2_m1
ATTRIBUTE : real8 v1_m1
ATTRIBUTE : v2\_m1
MODULE: mod 2
  1. v1_m1
  2.\ v2\_m2
```

ATTRIBUTE: v1_m1

 $ATTRIBUTE : v2_m2$

 $MODULE : mod_3$

- 1. v2_m1
- 2. v2_m2
- 3. v1_m1
- 4. v2_m3

 $ATTRIBUTE : v2_m1$

INHERITED: True

 $ATTRIBUTE : v2_m2$

 $\mathbf{INHERITED}: \mathbf{True}$

ATTRIBUTE: v1_m1

 $\mathbf{OVERRIDE}: \mathrm{True}$

 $ATTRIBUTE: v2_m3$

INTERFACE : iface_1

1. v1_i1

ATTRIBUTE : real8 v1_i1

 $MODULE : mod_4$

- 1. v1_i1
- 2. v2_m4

ATTRIBUTE: v1_i1

 $\mathbf{OVERRIDE}: \mathbf{True}$

ATTRIBUTE: STRING20 v2_m4

$\underline{\mathbf{IMPORTS}}$

DESCRIPTIONS

```
MODULE: Example_3

Example: Inheritance across files mod_1 in Example_4 inherits mod_1 in Example_3

1. mod_1

MODULE: mod_1

1. v1_m1

2. v2_m1_ex3
```

ATTRIBUTE: v1_m1

 $ATTRIBUTE: v2_m1_ex3$

$\underline{\mathbf{IMPORTS}}$

DESCRIPTIONS

 $MODULE: example_7$

Basic Type Example Source Code copied from ECL Documentation

1. R

RECORD : R

IMPORTS

- \bullet std
- \bullet intest
- \bullet Example_3
- $\bullet \ \ intest. Example_3$
- $\bullet \ \ intest.inintest$
- $\bullet \ intest.inintest.Example_3 \\$
- \bullet test
- Inintest
- $\bullet \ \ In intest. Example_3$

DESCRIPTIONS

 $MODULE: example_11$

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DESCRIPTIONS

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 \bullet Example_3.mod_1

DESCRIPTIONS

```
MODULE: example_4
```

Example : Inheritance across files mod_1 in Example_4 inherits mod_1 in Example_3

1. mod_1

$MODULE : mod_1$

- 1. v2_m1_ex4
- $2.\ v1_m1$
- $3. v2_m1_ex3$
- 4. long_name

 $ATTRIBUTE : v2_m1_ex4$

ATTRIBUTE: v1_m1

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 $\mathbf{INHERITED}: \mathrm{True}$

 $ATTRIBUTE: v2_m1_ex3$

DOC Test 3 No Period title **INHERITED** : True

FUNCTION : long_name(DATASET({REAL8 u}) X, DATASET({REAL8 u}) IntW, DATASET({REAL8 u}) Intb, REAL8 BETA=0.1, REAL8 sparsityParam=0.1, REAL8 LAMBDA=0.001, REAL8 ALPHA=0.1, UNSIGNED2 MaxIter=100)

INHERITED : True

$\underline{\mathbf{IMPORTS}}$

- \bullet example_8
- $\bullet \ example_8.mod_1$

DESCRIPTIONS

in1intest

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```
\label{lem:control_file} \begin{tabular}{ll} file: example\_2.ecl < tex/intest/in1intest/example\_2.ecl.tex> Basic Inheritance documentation: mod\_3 inherits both mod\_1 and mod\_2 \\ file: example\_3.ecl < tex/intest/in1intest/example\_3.ecl.tex> Example: Inheritance across files file: example\_7.ecl < tex/intest/in1intest/example\_7.ecl.tex> Basic Type Example file: example\_5.ecl < tex/intest/in1intest/example\_5.ecl.tex> file: example\_4.ecl < tex/intest/in1intest/example\_4.ecl.tex> Example: Inheritance across files file: example\_9.ecl < tex/intest/in1intest/example\_9.ecl.tex> \\ \end{tabular}
```

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DESCRIPTIONS

MODULE: example_2

Basic Inheritance documentation : mod_3 inherits both mod_1 and mod_2 . Inherits $v2_m1$, $v2_m2$, Overrides $v1_m1$, new locals $v2_m3$. Interface Inheritance : mod_4 inherits interface iface_1, overrides $v1_{i1}$

```
1. rec 1
  2. rec_2
  3. rec_3
  4. \mod_1
  5. mod_2
  6. mod_3
  7. iface_1
  8. mod_4
RECORD : rec_1
RECORD : rec_2
RECORD : rec_3
MODULE : mod_1
  1. v1_m1
  2. v2_m1
ATTRIBUTE : real8 v1_m1
ATTRIBUTE : v2\_m1
MODULE: mod 2
  1. v1_m1
  2. v2 m2
```

ATTRIBUTE: v1_m1

 $ATTRIBUTE : v2_m2$

 $MODULE : mod_3$

- 1. v2_m1
- 2. v2_m2
- 3. v1_m1
- 4. v2_m3

 $ATTRIBUTE : v2_m1$

INHERITED: True

 $ATTRIBUTE : v2_m2$

 $\mathbf{INHERITED}: \mathbf{True}$

ATTRIBUTE: v1_m1

 $\mathbf{OVERRIDE}: \mathrm{True}$

 $ATTRIBUTE: v2_m3$

INTERFACE: iface_1

1. v1_i1

ATTRIBUTE : real8 v1_i1

 $MODULE : mod_4$

- 1. v1_i1
- 2. v2_m4

ATTRIBUTE: v1_i1

 $\mathbf{OVERRIDE}: \mathbf{True}$

 $ATTRIBUTE : STRING20 v2_m4$

$\underline{\mathbf{IMPORTS}}$

DESCRIPTIONS

```
MODULE: Example_3

Example: Inheritance across files mod_1 in Example_4 inherits mod_1 in Example_3

1. mod_1

MODULE: mod_1

1. v1_m1

2. v2_m1_ex3
```

ATTRIBUTE: v1_m1

 $ATTRIBUTE: v2_m1_ex3$

$\underline{\mathbf{IMPORTS}}$

DESCRIPTIONS

 $MODULE: example_7$

Basic Type Example Source Code copied from ECL Documentation

1. R

RECORD : R

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 \bullet Example_3.mod_1

DESCRIPTIONS

```
MODULE: example_4
```

Example : Inheritance across files mod_1 in Example_4 inherits mod_1 in Example_3

1. mod_1

$MODULE : mod_1$

- 1. v2_m1_ex4
- 2. v1_m1
- $3. v2_m1_ex3$
- 4. long_name

 $ATTRIBUTE: v2_m1_ex4$

 $ATTRIBUTE : v1_m1$

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 $\mathbf{INHERITED}: \mathrm{True}$

ATTRIBUTE: v2 m1 ex3

DOC Test 3 No Period title **INHERITED** : True

FUNCTION : long_name(DATASET({REAL8 u}) X, DATASET({REAL8 u}) IntW, DATASET({REAL8 u}) Intb, REAL8 BETA=0.1, REAL8 sparsityParam=0.1, REAL8 LAMBDA=0.001, REAL8 ALPHA=0.1, UNSIGNED2 MaxIter=100)

INHERITED : True

$\underline{\mathbf{IMPORTS}}$

- \bullet example_8
- $\bullet \ example_8.mod_1$

DESCRIPTIONS

inintest

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```
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```

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DESCRIPTIONS

MODULE: example_2

Basic Inheritance documentation : mod_3 inherits both mod_1 and mod_2 . Inherits $v2_m1$, $v2_m2$, Overrides $v1_m1$, new locals $v2_m3$. Interface Inheritance : mod_4 inherits interface iface_1, overrides $v1_{i1}$

```
1. rec 1
  2. rec_2
  3. rec_3
  4. \mod_1
  5. mod_2
  6. mod_3
  7. iface_1
  8. mod_4
RECORD : rec_1
RECORD : rec_2
RECORD : rec_3
MODULE : mod_1
  1. v1_m1
  2. v2_m1
ATTRIBUTE : real8 v1_m1
ATTRIBUTE : v2\_m1
MODULE: mod 2
  1. v1_m1
  2. v2 m2
```

ATTRIBUTE: v1_m1

ATTRIBUTE: v2_m2

 $MODULE : mod_3$

- 1. v2_m1
- 2. v2_m2
- 3. v1_m1
- 4. v2_m3

 $ATTRIBUTE : v2_m1$

INHERITED: True

 $ATTRIBUTE : v2_m2$

 $\mathbf{INHERITED}: \mathbf{True}$

ATTRIBUTE: v1_m1

 $\mathbf{OVERRIDE}: \mathrm{True}$

 $ATTRIBUTE : v2_m3$

INTERFACE : iface_1

1. v1_i1

ATTRIBUTE : real8 v1_i1

 $MODULE : mod_4$

- 1. v1_i1
- 2. v2_m4

ATTRIBUTE: v1_i1

 $\mathbf{OVERRIDE}: \mathbf{True}$

 $ATTRIBUTE : STRING20 v2_m4$

IMPORTS

 \bullet std.Str

DESCRIPTIONS

```
MODULE: Example_3

Example: Inheritance across files mod_1 in Example_4 inherits mod_1 in Example_3

1. mod_1
```

MODULE : mod_1
1. v1_m1
2. v2_m1_ex3

 $ATTRIBUTE: v1_m1$

 $ATTRIBUTE: v2_m1_ex3$

$\underline{\mathbf{IMPORTS}}$

DESCRIPTIONS

 $MODULE: example_7$

Basic Type Example Source Code copied from ECL Documentation

1. R

RECORD : R

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 \bullet Example_3.mod_1

DESCRIPTIONS

```
MODULE : example\_4
```

Example : Inheritance across files mod_1 in Example_4 inherits mod_1 in Example_3

1. mod_1

$MODULE : mod_1$

- 1. v2_m1_ex4
- $2.\ v1_m1$
- $3. v2_m1_ex3$
- 4. long_name

 $ATTRIBUTE: v2_m1_ex4$

ATTRIBUTE: v1_m1

Doc test 2. Title end by period not newline

ABCD |||| CDEF ||||

 $\mathbf{INHERITED}: \mathrm{True}$

ATTRIBUTE: v2 m1 ex3

DOC Test 3 No Period title **INHERITED** : True

FUNCTION : long_name(DATASET({REAL8 u}) X, DATASET({REAL8 u}) IntW, DATASET({REAL8 u}) Intb, REAL8 BETA=0.1, REAL8 sparsityParam=0.1, REAL8 LAMBDA=0.001, REAL8 ALPHA=0.1, UNSIGNED2 MaxIter=100)

INHERITED : True

$\underline{\mathbf{IMPORTS}}$

- example_8
- $\bullet \ example_8.mod_1$

DESCRIPTIONS