

Mercury.Formats library  
1.0

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# Chapter 1

## Namespace Index

### 1.1 Packages

Here are the packages with brief descriptions (if available):

|                                       |   |
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| <a href="#">Mercury</a>               | 9 |
| <a href="#">Mercury.Experimental</a>  | 9 |
| <a href="#">Mercury.Formats</a>       | 9 |
| <a href="#">Mercury.Formats.Basic</a> | 9 |





## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

|                                                              |    |
|--------------------------------------------------------------|----|
| Mercury.Formats.Basic.GrammarEntityParser . . . . .          | 11 |
| IDisposable                                                  |    |
| Mercury.Formats.Basic.GrammarParser . . . . .                | 13 |
| Mercury.Formats.Basic.RewriteRulesParser< T > . . . . .      | 19 |
| Mercury.Formats.Basic.InterpreterEntityParser< T > . . . . . | 15 |



## Chapter 3

# Class Index

### 3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

|                                                                                                                                                                                                                                                                                                          |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <a href="#">Mercury.Formats.Basic.GrammarEntityParser</a>                                                                                                                                                                                                                                                |    |
| Class for parsing grammar entities used in <a href="#">Mercury</a> . . . . .                                                                                                                                                                                                                             | 11 |
| <a href="#">Mercury.Formats.Basic.GrammarParser</a>                                                                                                                                                                                                                                                      |    |
| Parses a grammar from a StreamReader. Grammar is expected in the format . . . . .                                                                                                                                                                                                                        | 13 |
| <a href="#">Mercury.Formats.Basic.InterpreterEntityParser&lt; T &gt;</a>                                                                                                                                                                                                                                 |    |
| Class for parsing interpreter entities used in <a href="#">Mercury</a> . Since there is a lot of tokens to scan, methods of the class work like "scanners", that is, their first parameter is always the full sequence of tokens and they only scan a subsequence specified by other parameters. . . . . | 15 |
| <a href="#">Mercury.Formats.Basic.RewriteRulesParser&lt; T &gt;</a>                                                                                                                                                                                                                                      |    |
| Parses the file containing rewrite rules. It is of the following format:                                                                                                                                                                                                                                 |    |
| 19                                                                                                                                                                                                                                                                                                       |    |



## Chapter 4

# File Index

### 4.1 File List

Here is a list of all files with brief descriptions:

|                                                                                                                                                    |    |
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| Mercury/Mercury.Formats/Basic/ <a href="#">EntityParser.cs</a> . . . . .                                                                           | 23 |
| Mercury/Mercury.Formats/Basic/ <a href="#">GrammarParser.cs</a> . . . . .                                                                          | 23 |
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| Mercury/Mercury.Formats/obj/Debug/ <a href="#">TemporaryGeneratedFile_036C0B5B-1481-4323-8D20-8F5ADC↵</a><br><a href="#">B23D92.cs</a> . . . . .   | 24 |
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| Mercury/Mercury.Formats/obj/Debug/ <a href="#">TemporaryGeneratedFile_E7A71F73-0F8D-4B9B-B56E-8E70↵</a><br><a href="#">B10BC5D3.cs</a> . . . . .   | 25 |
| Mercury/Mercury.Formats/obj/Release/ <a href="#">TemporaryGeneratedFile_036C0B5B-1481-4323-8D20-8F5AD↵</a><br><a href="#">CB23D92.cs</a> . . . . . | 24 |
| Mercury/Mercury.Formats/obj/Release/ <a href="#">TemporaryGeneratedFile_5937a670-0e60-4077-877b-f7221da3dda1↵</a><br><a href="#">cs</a> . . . . .  | 25 |
| Mercury/Mercury.Formats/obj/Release/ <a href="#">TemporaryGeneratedFile_E7A71F73-0F8D-4B9B-B56E-8E70↵</a><br><a href="#">B10BC5D3.cs</a> . . . . . | 25 |
| Mercury/Mercury.Formats/Properties/ <a href="#">AssemblyInfo.cs</a> . . . . .                                                                      | 25 |



## Chapter 5

# Namespace Documentation

### 5.1 Package Mercury

#### Namespaces

- package [Experimental](#)
- package [Formats](#)

### 5.2 Package Mercury.Experimental

#### Classes

- class **GrammarInfo**
- class **GrammarLoader**< T >
- class **GrammarLoaderInternal**< T >
- class **Pair**< T >

### 5.3 Package Mercury.Formats

#### Namespaces

- package [Basic](#)

#### Classes

- class **FmtChk**  
*Format checks. Kind of like System.Debug class.*

### 5.4 Package Mercury.Formats.Basic

#### Classes

- class [GrammarEntityParser](#)  
*Class for parsing grammar entities used in [Mercury](#).*
- class [GrammarParser](#)

*Parses a grammar from a `StreamReader`. Grammar is expected in the format*

- class [InterpreterEntityParser< T >](#)

*Class for parsing interpreter entities used in [Mercury](#). Since there is a lot of tokens to scan, methods of the class work like "scanners", that is, their first parameter is always the full sequence of tokens and they only scan a subsequence specified by other parameters.*

- class [RewriteRulesParser< T >](#)

*Parses the file containing rewrite rules. It is of the following format:*



## Chapter 6

# Class Documentation

### 6.1 Mercury.Formats.Basic.GrammarEntityParser Class Reference

Class for parsing grammar entities used in [Mercury](#).

#### Public Member Functions

- [GrammarEntityParser](#) (Symbol epsilon)  
*Initializes a new instance of the [GrammarEntityParser](#) class.*
- Symbol [ParseSymbol](#) (Token token)  
*Parses a symbol from a token.*
- Rule [ParseRule](#) (IList< Token > tokens)  
*Parses the rule.*  
*The rule is of the format  $A \rightarrow X Y Z \dots$  where  $A$  is a nonterminal symbols and  $X, Y$  and  $Z$  are terminals or nonterminals. If *epsilon* is used, the only format allowed is  $A \rightarrow \epsilon$ .*
- IList< Rule > [ParseMultiRule](#) (IList< Token > tokens)  
*Parses the multi-rule. It is of the form  $A \rightarrow RHS0 \mid RHS1 \mid \dots$  where  $A \rightarrow RHS0$  and  $A \rightarrow RHS1$  are valid rules.*
- Edge [ParseEdge](#) (IList< Token > tokens)  
*Parses the edge. It is of the form  $(l, r) A \rightarrow \alpha . \beta$  where  $l \leq r$  and  $A \rightarrow \alpha \beta$  is a valid rule.*

#### Properties

- Symbol [Epsilon](#) [get, set]

#### 6.1.1 Detailed Description

Class for parsing grammar entities used in [Mercury](#).

Definition at line 18 of file EntityParser.cs.

#### 6.1.2 Constructor & Destructor Documentation

##### 6.1.2.1 Mercury.Formats.Basic.GrammarEntityParser.GrammarEntityParser ( Symbol epsilon )

Initializes a new instance of the [GrammarEntityParser](#) class.

## Parameters

|                |                     |
|----------------|---------------------|
| <i>epsilon</i> | The epsilon symbol. |
|----------------|---------------------|

## Exceptions

|                                 |                                                   |
|---------------------------------|---------------------------------------------------|
| <i>System.ArgumentException</i> | Required epsilon symbol for Grammar Entity Parser |
|---------------------------------|---------------------------------------------------|

Definition at line 28 of file EntityParser.cs.

### 6.1.3 Member Function Documentation

#### 6.1.3.1 Edge `Mercury.Formats.Basic.GrammarEntityParser.ParseEdge ( IList< Token > tokens )`

Parses the edge. It is of the form  $(l, r) \ A \rightarrow \alpha \ . \ \beta$  where  $l \leq r$  and  $A \rightarrow \alpha \ \beta$  is a valid rule.

## Parameters

|               |             |
|---------------|-------------|
| <i>tokens</i> | The tokens. |
|---------------|-------------|

## Returns

The edge.

Definition at line 104 of file EntityParser.cs.

#### 6.1.3.2 `IList<Rule> Mercury.Formats.Basic.GrammarEntityParser.ParseMultiRule ( IList< Token > tokens )`

Parses the multi-rule. It is of the form  $A \rightarrow RHS0 \mid RHS1 \mid \dots$  where  $A \rightarrow RHS0$  and  $A \rightarrow RHS1$  are valid rules.

## Parameters

|               |             |
|---------------|-------------|
| <i>tokens</i> | The tokens. |
|---------------|-------------|

## Returns

List of rules.

Definition at line 76 of file EntityParser.cs.

#### 6.1.3.3 Rule `Mercury.Formats.Basic.GrammarEntityParser.ParseRule ( IList< Token > tokens )`

Parses the rule.

The rule is of the format  $A \rightarrow X \ Y \ Z \dots$  where  $A$  is a nonterminal symbols and  $X$ ,  $Y$  and  $Z$  are terminals or nonterminals. If `epsilon` is used, the only format allowed is  $A \rightarrow \epsilon$ .

## Parameters

|               |             |
|---------------|-------------|
| <i>tokens</i> | The tokens. |
|---------------|-------------|

## Returns

Definition at line 59 of file EntityParser.cs.

#### 6.1.3.4 Symbol `Mercury.Formats.Basic.GrammarEntityParser.ParseSymbol ( Token token )`

Parses a symbol from a token.

## Parameters

|              |            |
|--------------|------------|
| <i>token</i> | The token. |
|--------------|------------|

## Returns

A new symbol.

Definition at line 41 of file EntityParser.cs.

## 6.1.4 Property Documentation

### 6.1.4.1 Symbol Mercury.Formats.Basic.GrammarEntityParser.Epsilon [get], [set]

Definition at line 134 of file EntityParser.cs.

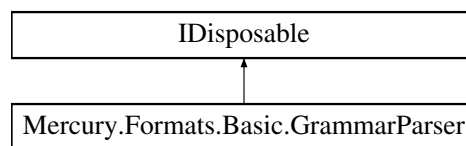
The documentation for this class was generated from the following file:

- Mercury/Mercury.Formats/Basic/[EntityParser.cs](#)

## 6.2 Mercury.Formats.Basic.GrammarParser Class Reference

Parses a grammar from a StreamReader. Grammar is expected in the format

Inheritance diagram for Mercury.Formats.Basic.GrammarParser:



### Public Member Functions

- [GrammarParser](#) (StreamReader reader)  
*Creates a parser that will parse grammar from provided StreamReader instance.*
- [GrammarParser](#) (string filename)  
*Initializes a new instance of the [GrammarParser](#) class.*
- GrammarBuilder [GetBuilder](#) ()  
*Parses the file provided by the constructor's argument and returns the builder.*
- void [Dispose](#) ()

### 6.2.1 Detailed Description

Parses a grammar from a StreamReader. Grammar is expected in the format

```

# comment
[root      Root]
[epsilon e  ]

LHS -> RHS0 [| RHS1]*
      [|? RHS2      ]
  
```

where `LHS -> RHS` is compliant to the conditions of class `Mercury.Syntax.Rule` and symbols of `RHS` are delimited by space.

Escape characters:

`"`, `\`, `'`, `|`, `\`, `[space]`

Aggregated rules are rules of the form `LHS -> RHS1 | RHS2`; the notation is equivalent to `LHS -> RHS1` and `LHS -> RHS2`. They can take more than one line. The next line can (but is not required to) start with RHS separator `'|'`.

Grammar header (lines before first rule) can specify Root symbol and epsilon symbol in format

`root Root`

`epsilon e`

then the `Root` will be used as Root Nonterminal and `e` will be used as epsilon symbol. If those lines are missing, symbols from `Mercury.Defaults` will be used.

Example Grammar:

```
# Expression language
# i.e. (1 + (5 / 3))

# Header
root Expr

# Rules
Expr -> (Expr @Op Expr) | @Number
@Op  -> + | - | * | /
```

Definition at line 59 of file `GrammarParser.cs`.

## 6.2.2 Constructor & Destructor Documentation

### 6.2.2.1 `Mercury.Formats.Basic.GrammarParser.GrammarParser ( StreamReader reader )`

Creates a parser that will parse grammar from provided `StreamReader` instance.

Parameters

|               |                   |
|---------------|-------------------|
| <i>reader</i> | The source reader |
|---------------|-------------------|

Exceptions

|                                                |                              |
|------------------------------------------------|------------------------------|
| <i>System.ArgumentNull</i><br><i>Exception</i> | When provided stream is null |
|------------------------------------------------|------------------------------|

Definition at line 79 of file `GrammarParser.cs`.

### 6.2.2.2 `Mercury.Formats.Basic.GrammarParser.GrammarParser ( string filename )`

Initializes a new instance of the [GrammarParser](#) class.

## Parameters

|                 |                |
|-----------------|----------------|
| <i>filename</i> | The file name. |
|-----------------|----------------|

Definition at line 90 of file GrammarParser.cs.

### 6.2.3 Member Function Documentation

#### 6.2.3.1 void Mercury.Formats.Basic.GrammarParser.Dispose ( )

Definition at line 210 of file GrammarParser.cs.

#### 6.2.3.2 GrammarBuilder Mercury.Formats.Basic.GrammarParser.GetBuilder ( )

Parses the file provided by the constructor's argument and returns the builder.

## Returns

The grammar builder.

## Exceptions

|                               |  |
|-------------------------------|--|
| <i>System.FormatException</i> |  |
|-------------------------------|--|

Definition at line 188 of file GrammarParser.cs.

The documentation for this class was generated from the following file:

- Mercury/Mercury.Formats/Basic/[GrammarParser.cs](#)

## 6.3 Mercury.Formats.Basic.InterpreterEntityParser< T > Class Template Reference

Class for parsing interpreter entities used in [Mercury](#). Since there is a lot of tokens to scan, methods of the class work like "scanners", that is, their first parameter is always the full sequence of tokens and they only scan a subsequence specified by other parameters.

## Classes

- class **AlternativeData**

## Public Member Functions

- [InterpreterEntityParser](#) (Symbol epsilon, IReadOnlyDictionary< string, InterpreterAction< T >> actions, IReadOnlyDictionary< string, string > aliases)
- IElement [ParseElement](#) (IList< Token > tokens, int start, out int end)  
*Parses the element.*
- Constant [ParseConstant](#) (IList< Token > tokens, int start, out int end)  
*Parses the constant. It is of the form `symbols:mask` where `symbols` is a list of symbols separated by | and `mask` contains the symbols*
- Variable [ParseVariable](#) (IList< Token > tokens, int start, out int end)  
*Parses the variable. It is of the form `#name:alternative` where `name` is a variable name and `alternative` has the same format as defined in [ParseConstant](#).*
- Wildcard [ParseWildcard](#) (IList< Token > tokens, int start, out int end)

- Parses the wildcard. It is of the form `*name:alternative`. The same conditions hold as in [ParseVariable](#).*
- Structure [ParseStructure](#) (IList< Token > tokens, int start, out int end)

*Parses the structure. It is of the form `[Root Elements...]` where `Root` is an `Mercury.Interpreting.Alternative` and `Elements` is a list of elements.*
- IFormalParameter [ParseParameter](#) (IList< Token > tokens, int start, out int end)

*Parses the parameter. It might be a constant or an action call.*
- ActionCall< T > [ParseActionCall](#) (IList< Token > tokens, int start, out int end)

*Parses the action call. It is of the form `(f x y z...)` where `f` is a name of an action and `x`, `y` and `z` are its arguments parsed recursively.*
- IFormalParameter[] [ParseParameters](#) (IList< Token > tokens, int start, out int end)

*Parses the parameters of an action call.*
- RewriteRule< T > [ParseRewriteRule](#) (IList< Token > tokens)

*Parses the rewrite rule. It is of the form `LHS ==> RHS` where `LHS` is a `Mercury.Interpreting.Structure` and `RHS` is an `Mercury.Interpreting.ActionCall{T}`.*

### 6.3.1 Detailed Description

Class for parsing interpreter entities used in [Mercury](#). Since there is a lot of tokens to scan, methods of the class work like "scanners", that is, their first parameter is always the full sequence of tokens and they only scan a subsequence specified by other parameters.

Template Parameters

|          |                         |
|----------|-------------------------|
| <i>T</i> | Interpreter return type |
|----------|-------------------------|

#### Type Constraints

***T* : class**

Definition at line 149 of file EntityParser.cs.

### 6.3.2 Constructor & Destructor Documentation

- 6.3.2.1 `Mercury.Formats.Basic.InterpreterEntityParser< T >.InterpreterEntityParser ( Symbol epsilon, IReadOnlyDictionary< string, InterpreterAction< T >> actions, IReadOnlyDictionary< string, string > aliases )`

Definition at line 171 of file EntityParser.cs.

### 6.3.3 Member Function Documentation

- 6.3.3.1 `ActionCall<T> Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseActionCall ( IList< Token > tokens, int start, out int end )`

Parses the action call. It is of the form `(f x y z...)` where `f` is a name of an action and `x`, `y` and `z` are its arguments parsed recursively.

Parameters

|               |                                          |
|---------------|------------------------------------------|
| <i>tokens</i> | The list of tokens.                      |
| <i>start</i>  | Index of the first token of the element. |
| <i>end</i>    | Index of token AFTER the element.        |

#### Returns

The action call.

## Exceptions

|                                 |                                        |
|---------------------------------|----------------------------------------|
| <i>System.FormatException</i>   |                                        |
| <i>System.ArgumentException</i> | Expected ')' at the end of action call |

Definition at line 404 of file EntityParser.cs.

### 6.3.3.2 Constant Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseConstant ( IList< Token > *tokens*, int *start*, out int *end* )

Parses the constant. It is of the form *symbols*:*mask* where *symbols* is a list of symbols separated by | and *mask* contains the symbols

- N for nonterminals,
- T for terminals,
- e for epsilon.

If the mask is empty, the colon must be omitted.

## Parameters

|               |                                          |
|---------------|------------------------------------------|
| <i>tokens</i> | The list of tokens.                      |
| <i>start</i>  | Index of the first token of the element. |
| <i>end</i>    | Index of token AFTER the element.        |

## Returns

A constant.

Definition at line 219 of file EntityParser.cs.

### 6.3.3.3 IElement Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseElement ( IList< Token > *tokens*, int *start*, out int *end* )

Parses the element.

## Parameters

|               |                                          |
|---------------|------------------------------------------|
| <i>tokens</i> | The list of tokens.                      |
| <i>start</i>  | Index of the first token of the element. |
| <i>end</i>    | Index of token AFTER the element.        |

## Returns

The element

Definition at line 187 of file EntityParser.cs.

### 6.3.3.4 IFormalParameter Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseParameter ( IList< Token > *tokens*, int *start*, out int *end* )

Parses the parameter. It might be a constant or an action call.

**Parameters**

|               |                                          |
|---------------|------------------------------------------|
| <i>tokens</i> | The list of tokens.                      |
| <i>start</i>  | Index of the first token of the element. |
| <i>end</i>    | Index of token AFTER the element.        |

**Returns**

The parameter.

Definition at line 369 of file EntityParser.cs.

**6.3.3.5** `IFormalParameter [] Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseParameters ( IList< Token > tokens, int start, out int end )`

Parses the parameters of an action call.

**Parameters**

|               |                                          |
|---------------|------------------------------------------|
| <i>tokens</i> | The list of tokens.                      |
| <i>start</i>  | Index of the first token of the element. |
| <i>end</i>    | Index of token AFTER the element.        |

**Returns**

Definition at line 436 of file EntityParser.cs.

**6.3.3.6** `RewriteRule<T> Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseRewriteRule ( IList< Token > tokens )`

Parses the rewrite rule. It is of the form `LHS ==> RHS` where `LHS` is a `Mercury.Interpreting.Structure` and `RHS` is an `Mercury.Interpreting.ActionCall{T}`.

**Parameters**

|               |             |
|---------------|-------------|
| <i>tokens</i> | The tokens. |
|---------------|-------------|

**Returns**

The rewrite rule.

**Exceptions**

|                                       |  |
|---------------------------------------|--|
| <code>System.ArgumentException</code> |  |
|---------------------------------------|--|

Definition at line 461 of file EntityParser.cs.

**6.3.3.7** `Structure Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseStructure ( IList< Token > tokens, int start, out int end )`

Parses the structure. It is of the form `[Root Elements ...]` where `Root` is an `Mercury.Interpreting.Alternative` and `Elements` is a list of elements.



## Parameters

|               |                                          |
|---------------|------------------------------------------|
| <i>tokens</i> | The list of tokens.                      |
| <i>start</i>  | Index of the first token of the element. |
| <i>end</i>    | Index of token AFTER the element.        |

## Returns

The structure.

Definition at line 343 of file EntityParser.cs.

### 6.3.3.8 Variable Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseVariable ( IList< Token > *tokens*, int *start*, out int *end* )

Parses the variable. It is of the form `#name:alternative` where `name` is a variable name and `alternative` has the same format as defined in [ParseConstant](#).

In addition, `#name` is equivalent of `#name : NTe`.

## Parameters

|               |             |
|---------------|-------------|
| <i>tokens</i> | The tokens. |
| <i>start</i>  | The start.  |
| <i>end</i>    | The end.    |

## Returns

A variable.

Definition at line 276 of file EntityParser.cs.

### 6.3.3.9 Wildcard Mercury.Formats.Basic.InterpreterEntityParser< T >.ParseWildcard ( IList< Token > *tokens*, int *start*, out int *end* )

Parses the wildcard. It is of the form `*name:alternative`. The same conditions hold as in [ParseVariable](#).

The `*name` is a shorthand for `*name\ : \ : NTe` and `*` is a shorthand for `*(random_name) : NTe`.

## Parameters

|               |                                          |
|---------------|------------------------------------------|
| <i>tokens</i> | The list of tokens.                      |
| <i>start</i>  | Index of the first token of the element. |
| <i>end</i>    | Index of token AFTER the element.        |

## Returns

The variable.

Definition at line 309 of file EntityParser.cs.

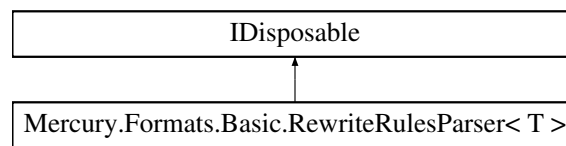
The documentation for this class was generated from the following file:

- Mercury/Mercury.Formats/Basic/[EntityParser.cs](#)

## 6.4 Mercury.Formats.Basic.RewriteRulesParser< T > Class Template Reference

Parses the file containing rewrite rules. It is of the following format:

Inheritance diagram for Mercury.Formats.Basic.RewriteRulesParser< T >:



## Public Member Functions

- [RewriteRulesParser](#) (StreamReader reader, Symbol epsilon, IEnumerable< InterpreterAction< T >> actions, IReadOnlyDictionary< string, string > aliases=null)  
*Initializes a new instance of the RewriteRulesParser{T} class.*
- [RewriteRulesParser](#) (string filename, Symbol epsilon, IEnumerable< InterpreterAction< T >> actions, IReadOnlyDictionary< string, string > aliases=null)
- RewriteRuleCollection< T > [GetRules](#) ()  
*Parses the stream and returns the collection of rules.*
- void [Dispose](#) ()

### 6.4.1 Detailed Description

Parses the file containing rewrite rules. It is of the following format:

```
# comment
Structure0 ==> ActionCall0
Structure1 ==> ActionCall1
```

where `Structure_` and `ActionCall_` are parsed by `InterpreterEntityParser{T}`.

To use any special symbol like `:`, `#` etc. in other contexts, it is possible to quote `" :` or use the prefixed version `\:.`

Tokens are *always* parsed *regardless* white spaces. Therefore `A|B|C:NT` is the same as `A | B | C : NT`. The only exception is variable and wildcard name; `#name` does not equal `# name` nor `*name` equals `* name`.

Example:

```
# Interpreter rules for grammar specified
# in the grammar parser example.

# Expr -> (Expr @Op Expr)
[Expr ? #l #o #r ?]
==> (let x (Eval #l)
      y (Eval #r)
      (Case (Preterminal #o) (Fail)
        '+' (Add (var x) (var y))
        '-' (Sub (var x) (var y))
        '*' (Mul (var x) (var y))
        '/' (Div (var x) (var y))
      )
    )
```

```
# Expr -> @Number
[Expr [@Number #x]] ==> (ParseInteger (Name #x))
```

**Template Parameters**

|          |  |
|----------|--|
| <i>T</i> |  |
|----------|--|

**Type Constraints*****T* : class**

Definition at line 53 of file RewriteRulesFileParser.cs.

**6.4.2 Constructor & Destructor Documentation**

**6.4.2.1** `Mercury.Formats.Basic.RewriteRulesParser< T >.RewriteRulesParser ( StreamReader reader, Symbol epsilon, IEnumerable< InterpreterAction< T >> actions, IReadOnlyDictionary< string, string > aliases = null )`

Initializes a new instance of the RewriteRulesParser{T} class.

**Parameters**

|                |                                 |
|----------------|---------------------------------|
| <i>reader</i>  | The stream reader (the source). |
| <i>epsilon</i> | The epsilon symbol.             |
| <i>actions</i> | The list of actions.            |
| <i>aliases</i> | Dictionary of aliases.          |

**Exceptions**

|                                           |                   |
|-------------------------------------------|-------------------|
| <i>System.ArgumentNull←<br/>Exception</i> | reader or actions |
|-------------------------------------------|-------------------|

Definition at line 81 of file RewriteRulesFileParser.cs.

**6.4.2.2** `Mercury.Formats.Basic.RewriteRulesParser< T >.RewriteRulesParser ( string filename, Symbol epsilon, IEnumerable< InterpreterAction< T >> actions, IReadOnlyDictionary< string, string > aliases = null )`

Definition at line 98 of file RewriteRulesFileParser.cs.

**6.4.3 Member Function Documentation**

**6.4.3.1** `void Mercury.Formats.Basic.RewriteRulesParser< T >.Dispose ( )`

Definition at line 174 of file RewriteRulesFileParser.cs.

**6.4.3.2** `RewriteRuleCollection<T> Mercury.Formats.Basic.RewriteRulesParser< T >.GetRules ( )`

Parses the stream and returns the collection of rules.

**Returns**

Collection of rewrite rules.

### Exceptions

|                               |                          |
|-------------------------------|--------------------------|
| <i>System.FormatException</i> | When something is wrong. |
|-------------------------------|--------------------------|

Definition at line 154 of file RewriteRulesFileParser.cs.

The documentation for this class was generated from the following file:

- Mercury/Mercury.Formats/Basic/[RewriteRulesFileParser.cs](#)

## Chapter 7

# File Documentation

### 7.1 Mercury/Mercury.Formats/Basic/EntityParser.cs File Reference

#### Classes

- class [Mercury.Formats.Basic.GrammarEntityParser](#)  
*Class for parsing grammar entities used in [Mercury](#).*
- class [Mercury.Formats.Basic.InterpreterEntityParser< T >](#)  
*Class for parsing interpreter entities used in [Mercury](#). Since there is a lot of tokens to scan, methods of the class work like "scanners", that is, their first parameter is always the full sequence of tokens and they only scan a subsequence specified by other parameters.*
- class **Mercury.Formats.Basic.InterpreterEntityParser< T >.AlternativeData**

#### Namespaces

- package [Mercury.Formats.Basic](#)

### 7.2 Mercury/Mercury.Formats/Basic/GrammarParser.cs File Reference

#### Classes

- class [Mercury.Formats.Basic.GrammarParser](#)  
*Parses a grammar from a StreamReader. Grammar is expected in the format*

#### Namespaces

- package [Mercury.Formats.Basic](#)

### 7.3 Mercury/Mercury.Formats/Basic/RewriteRulesFileParser.cs File Reference

#### Classes

- class [Mercury.Formats.Basic.RewriteRulesParser< T >](#)  
*Parses the file containing rewrite rules. It is of the following format:*

## Namespaces

- package [Mercury.Formats.Basic](#)

## 7.4 Mercury/Mercury.Formats/FmtChk.cs File Reference

### Classes

- class **Mercury.Formats.FmtChk**  
*Format checks. Kind of like System.Debug class.*

## Namespaces

- package [Mercury.Formats](#)

## 7.5 Mercury/Mercury.Formats/Modular/GrammarInfo.cs File Reference

### Classes

- class **Mercury.Experimental.Pair**< T >
- class **Mercury.Experimental.GrammarInfo**

## Namespaces

- package [Mercury.Experimental](#)

## 7.6 Mercury/Mercury.Formats/Modular/ModuleLoader.cs File Reference

### Classes

- class **Mercury.Experimental.GrammarLoaderInternal**< T >
- class **Mercury.Experimental.GrammarLoader**< T >

## Namespaces

- package [Mercury.Experimental](#)

## 7.7 Mercury/Mercury.Formats/obj/Debug/TemporaryGeneratedFile\_036C0B5B-1481-4323-8D20-8F5ADCB23D92.cs File Reference

## 7.8 Mercury/Mercury.Formats/obj/Release/TemporaryGeneratedFile\_036C0B5B-1481-4323-8D20-8F5ADCB23D92.cs File Reference

## 7.9 Mercury/Mercury.Formats/obj/Debug/TemporaryGeneratedFile\_5937a670-0e60-4077-877b-f7221da3dda1.cs File Reference

7.10 Mercury/Mercury.Formats/obj/Release/TemporaryGeneratedFile\_5937a670-0e60-4077-877b-f7221da3dda1.cs File

Reference

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7.10 Mercury/Mercury.Formats/obj/Release/TemporaryGeneratedFile\_5937a670-0e60-4077-877b-f7221da3dda1.cs File Reference

7.11 Mercury/Mercury.Formats/obj/Debug/TemporaryGeneratedFile\_E7A71F73-0F8D-4B9B-B56E-8E70B10BC5D3.cs File Reference

7.12 Mercury/Mercury.Formats/obj/Release/TemporaryGeneratedFile\_E7A71F73-0F8D-4B9B-B56E-8E70B10BC5D3.cs File Reference

7.13 Mercury/Mercury.Formats/Properties/AssemblyInfo.cs File Reference

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