String conversion methods

Method	Definition	Description
str.atoi()	function integer atoi();	Returns the integer corresponding to the ASCII decimal representation in str
str.atohex()	function integer atohex();	Interprets the string as hexadecimal
str.atooct()	function integer atooct();	Interprets the string as octal
str.atobin()	function integer atobin();	Interprets the string as binary
str.atoreal()	function real atoreal();	Returns the real number corresponding to the ASCII decimal representation in str
str.itoa(i)	function void itoa (integer i);	Stores the ASCII decimal representation of i into str
str.hextoa(i)	function void hextoa (integer i);	Stores the ASCII hexadecimal representation of i into str
str.octtoa(i)	function void octtoa (integer i);	Stores the ASCII octal representation of i into str
str.bintoa(i)	function void bintoa (integer i);	Stores the ASCII binary representation of i into str
str.realtoa(r)	function void realtoa (real r);	Stores the ASCII real representation of r into str

Basic string methods

Method		
str.len()		e string
str.putc()		with the given
str.getc()		cter in str
str.tolower()	function string tolower();	onverted to lowercase
str.compare(s)	function int compare (string s);	Compares str and s, as in the ANSI C strcmp function
str.icompare(s)	function int icompare (string s);	Compares str and s, like the ANSI C strcmp function
str.substr (i, j)	function string substr (int i, int j);	Returns a new string that is a substring formed by characters in position i through j of str

The comparison is case-sensitive, and the function returns an integer value based on the first mismatched character between the two strings.

- **Zero (0):**
- **If both strings are identical, the return value is zero.**
- **Greater than zero (>0):**
- **If the first mismatched character of the left string has a greater ASCII value than the corresponding character of the right string.**
- **Less than zero (<0):**
- **If the first mismatched character of the left string has a lesser ASCII value than the corresponding character of the right string.**

Basic string methods

Method	Definition	Description
str.len()	function int len()	Returns the number of characters in the string
str.putc()	function void putc (int i, byte c);	Replaces the i^{th} character in the string with the given character
str.getc()	function byte getc (int i);	Returns the ASCII code of the i^{th} character in str
str.tolower()	function string tolower();	Returns a string with characters in str converted to lowercase
str.compare(s)	function int compare (string s);	Compares str and s, as in the ANSI C strcmp function
str.icompare(s)	function int icompare (string s);	Compares str and s, like the ANSI C strcmp function
str.substr (i, j)	function string substr (int i, int j);	Returns a new string that is a substring formed by characters in position i through j of str

String operators

Operator	Name	Description
Str1 == Str2	Equality	Returns 1 if the two strings are equal and 0 if they are not
Str1 != Str2	Inequality	Returns 1 if the two strings are not equal and 0 if they are
Str1 < Str2 Str1 <= Str2 Str1 > Str2 Str1 >= Str2	Comparison	Returns 1 if the correspondig condition is true and 0 if false
{Str1, Str2, ..., StrN}	Concatenation	All strings will be concatenated into one resultant string
{multiplier{Str}}	Replication	Replicates the string N number of times, where N is specified by the multiplier
Str[index]	Indexing	Returns a byte, the ASCII code at the given index. If given index is out of range, it returns 0
Str.method([args])	Methods	The dot(.) operator is used to call string functions

String

- A string data-type is an ordered collection of charecters.
- The length of a string variable is the number of characters in the collection which can have dynamic length.
- How are string represented in verilog?
- Syntax
- string variable_name;
  - ex: string str;

String

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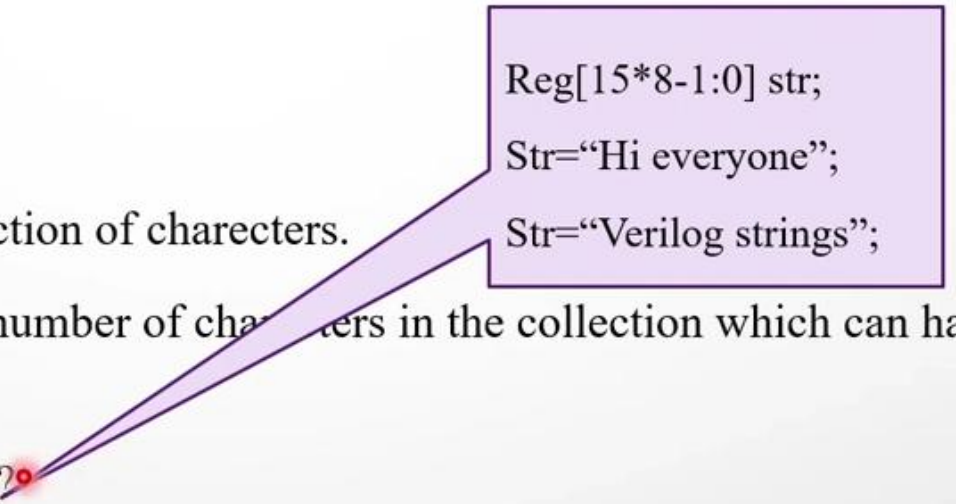

Strings

In system verilog

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