

PPS- Design of an own WWW-Homepage SS 2003

Lecture 3:

Cascading Style Sheets (CSS)

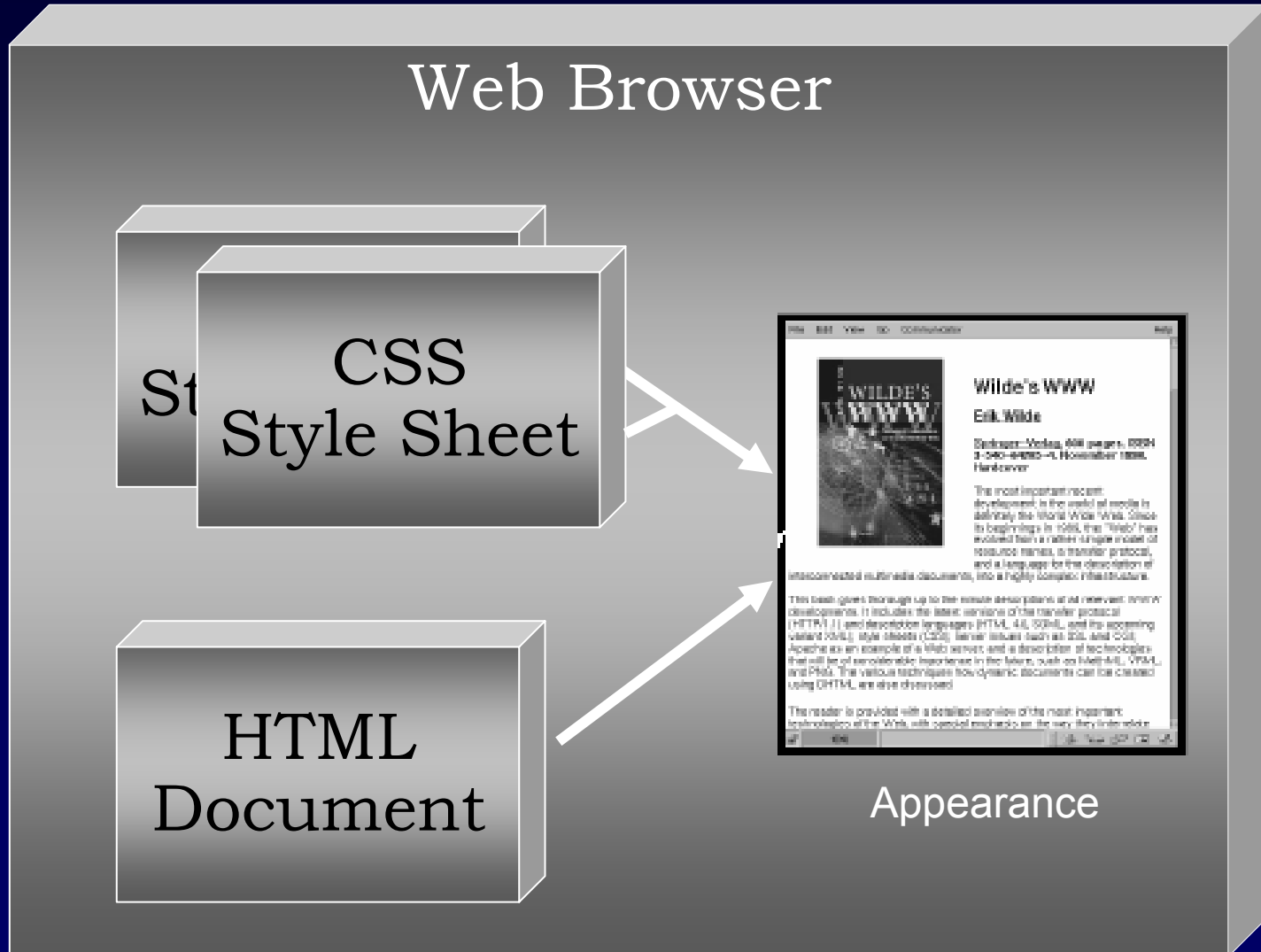
Károly Farkas (farkas@tik.ee.ethz.ch)

Cascading Style Sheets

Style sheets separate content from presentation

- What can it do?
 - Allow authors and users to attach style to structured documents
- Why?
 - Simplifies Web authoring and site maintenance
- How?
 - Separate presentation style from content

Publishing with CSS



Attaching Style to Content

- Embedded Style Sheet: **STYLE** element

```
<HEAD> ...  
  <STYLE type="text/css">  
    H1 { color: blue; font-size: 48pt }  
    P { font-size: 32pt }  
  </STYLE>  
  ...  
</HEAD>
```

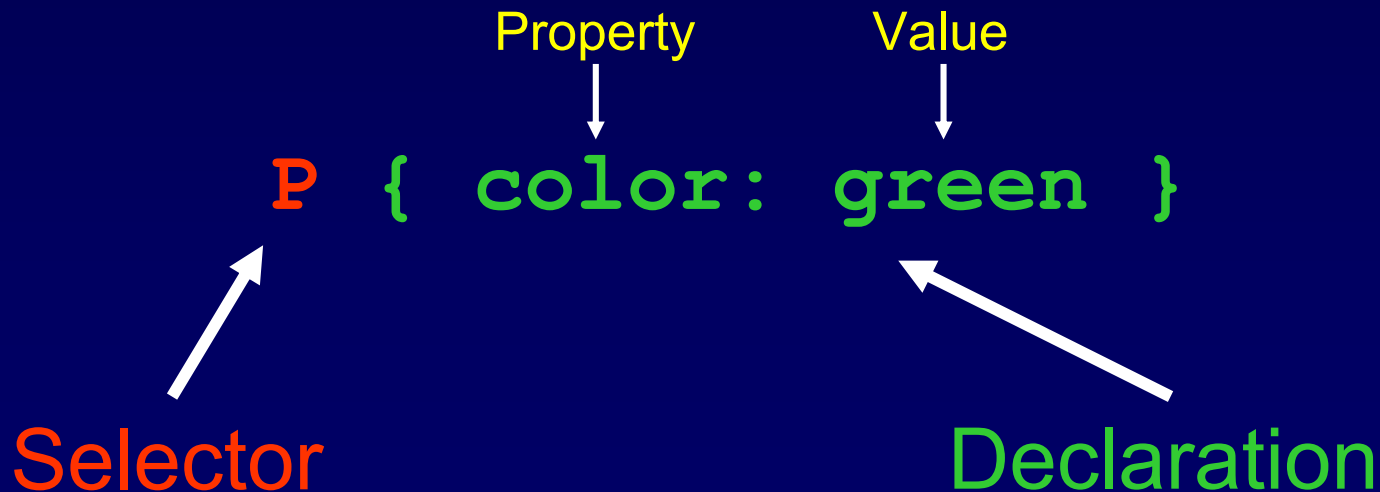
Attaching Style to Content (2)

- External Style Sheets: **LINK** element

```
<HEAD> ...  
  <LINK rel="stylesheet"  
        href="LINK-Element.css" type="text/css">  
  ...  
</HEAD>
```

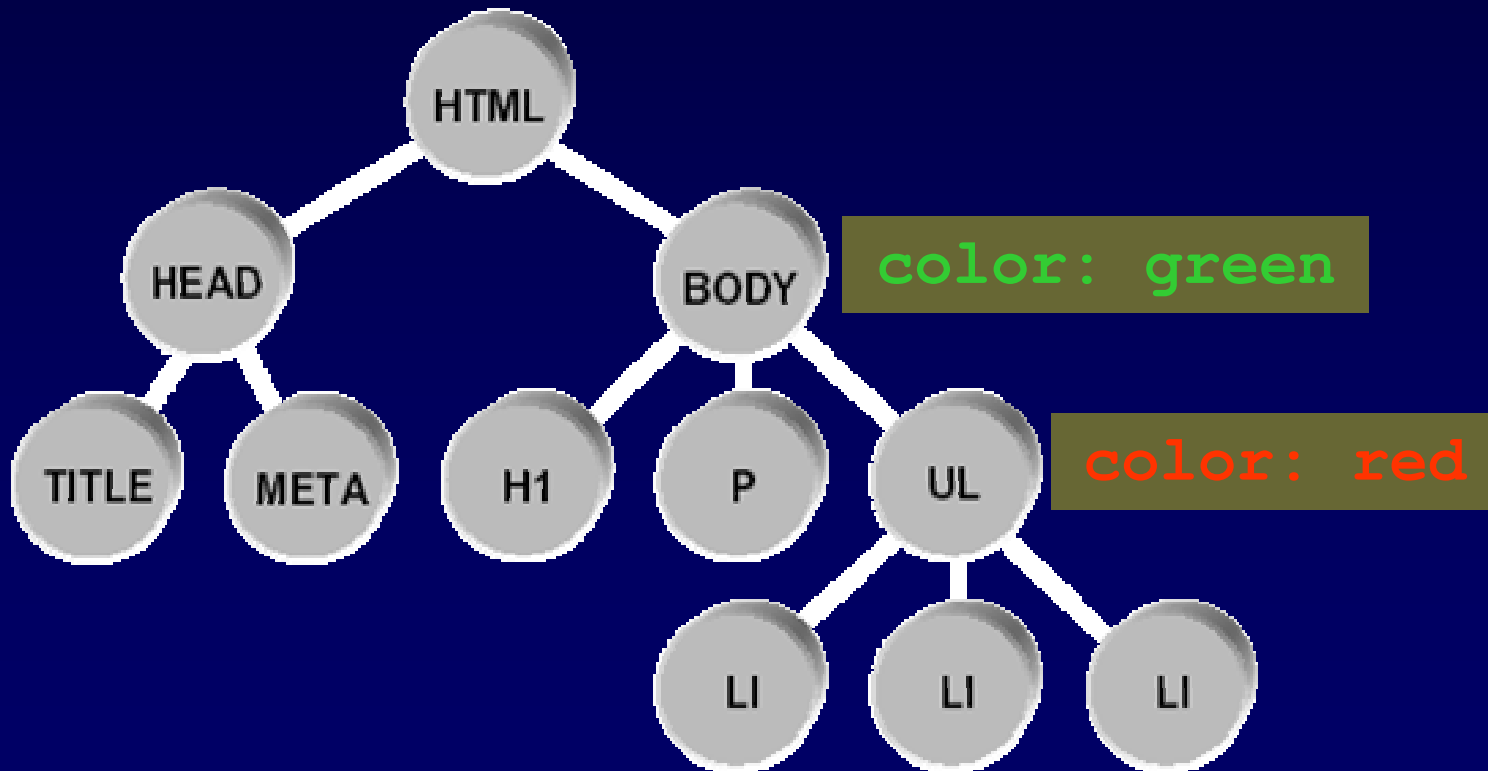
Basics of CSS

- A Style Sheet:
 - A set of **rules** which apply to an HTML document
- Each rule consists of two parts:
 - **Selector**
 - **Declaration**



CSS Rules' Inheritance

The **rules** specify which style declarations to be applied to which items in a document tree



Assignment 1

Create a dummy HTML page using Style Sheets.

Hints: Download the 1st example files and from the HTML file eliminate the Style related elements (move them into the .css file and add a reference to this file). Then change the property values in the style sheet file and observe the impact on the appearance of the HTML file.

Selectors

- Type or Element selectors
 - refer to elements and some relationships between them
- Attribute selectors
 - refer to element attributes and their values
- Contextual selectors
 - refer to contextual relationship
- External selectors
 - selection should be made on external information
- Special selectors
 - define new elements with formatting semantics

Type/Element Selectors

- Selects an **Element** according to its **Type**
 - Pattern: E or E1 + E2 or *, etc.

```
P { color: green }
```

or

```
H1 { color: yellow }
```

- It's possible to use a **grouping** mechanism

```
H1, H2, H3 { color: yellow }
```

Attribute Selectors

- **Simple** attribute selectors
 - Pattern: [Attr] or E[Attr]
- Attribute **value** selectors
 - Pattern: [Attr="val"] or E[Attr="val"]
- **Special** attributes
 - **Class** selector: .Class or E.Class
 - **ID** selector: #ID or E#ID
- Examples
 - See Assignment 2

Contextual Selectors

- Uses Simple selectors (Type or Attribute) to specify a **contextual** relationship
 - Pattern: E1 E2 ...

```
LI P { margin-top: 0mm }
```

or

```
TABLE .SMALL P { font-size: small }
```

External Selectors

- Selection should be made on **external** information
- Pseudo Classes
 - Link Pseudo Classes
 - Pattern: :link|E:link or :active|E:active or :visited|E:visited
- Pseudo Elements
 - First Letter, First Line
 - Pattern: :first-letter|E:first-letter or :first-line|E:first-line

```
A:link { color: green }
```

```
P:first-letter { font-size: 200% }
```

Special Selectors

- Defines **new elements** with formatting semantics in HTML
- Block-level element
 - Pattern: `<DIV class|id='value'> ... </DIV>`
- Inline element
 - Pattern: ` ... `
- Examples
 - See Assignment 2

Declaration Block

- Binds a value to a CSS **property**
- Consists of a **property name**, followed by a **colon**, followed by a **property value**
 - Selector { **Property1: Value1; Property2: Value2** }
- Property names:
 - <http://www.blooberry.com/indexdot/css/propindex/all.htm>
- Values
 - Numbers (absolute, relative)
 - Percentage
 - Predefined aliases (e.g., small, bold, left, etc.)

Assignment 2

Study the files of example 2 then extend them to create an own HTML page using Style Sheets.

- Hints:**
- Use the on-line references given on the next slide.
 - Change the formatting style given in the example files.
 - Design an own Style Sheet and create an own HTML page based on this sheet using different headers, paragraphs, list elements, etc...

Further Information

- CSS Home Page
 - <http://www.w3.org/Style/CSS/>
- CSS2 Specification
 - <http://www.w3.org/TR/REC-CSS2/>
- CSS On-line Tutorials
 - <http://www.w3.org/Style/CSS/learning>
- CSS Tutorial (in German)
 - <http://selfhtml.teamone.de/css/>