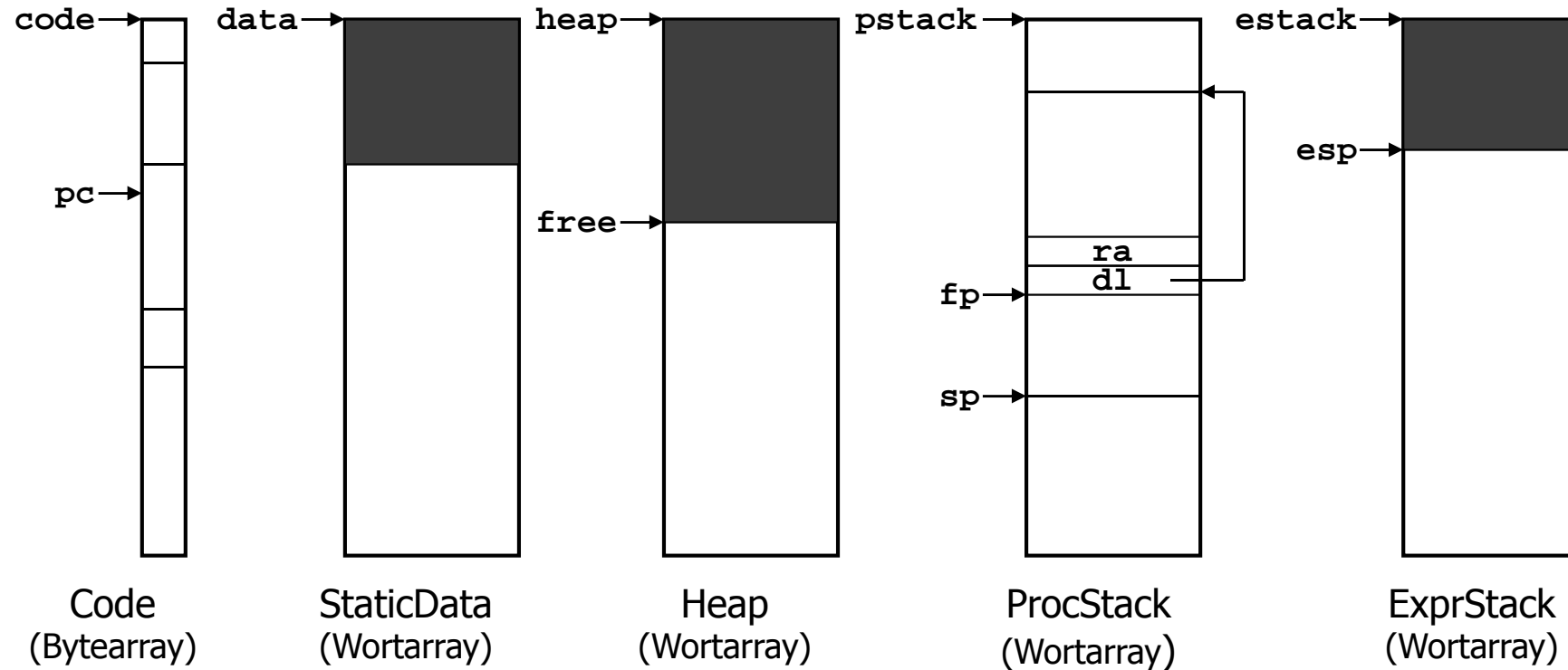


MicroJava VM: Speicher-Layout

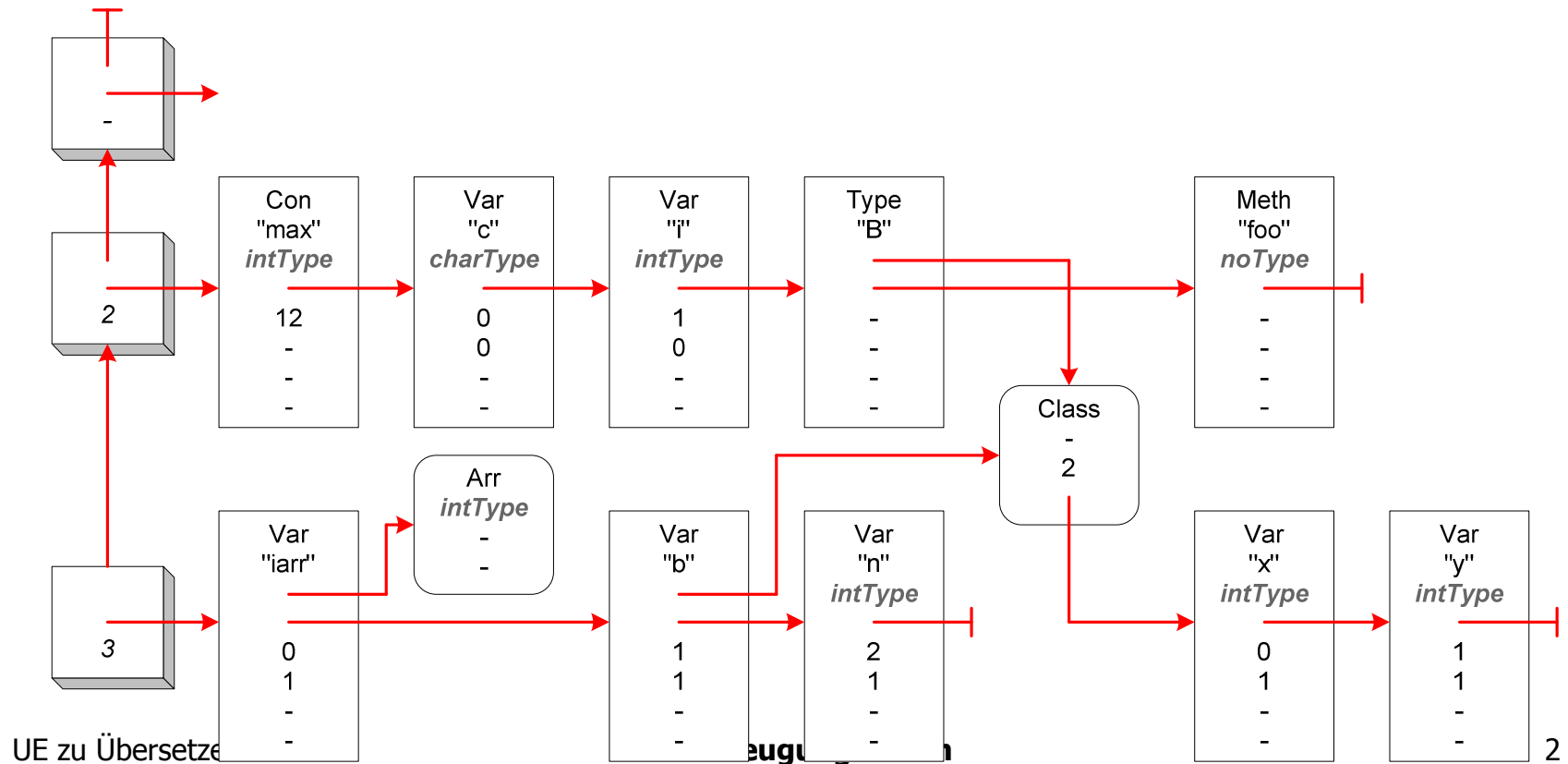


Symboltabelle

Deklaration: program A

```

final int max = 12;           // Konstante
char c; int i;              // globale Variablen
class B { int x, y; }       // innere Klasse mit Feldern
{ void foo () int[] iarr; B b; int n; {...} }
  
```



Bsp 1: **n = 3;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

const_3 = **2** byte
store_2

Bsp 2: **i = 10;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

const 10 = **8** byte
putstatic 1

Bsp 3: **n = 3 + i;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

const_3 = **6** byte
getstatic 1
add
store_2

Bsp 4: **n = 3 + i * max - n;**

Deklaration: **program A**
final int max = 12; // *Konstante*
char c; int i; // *globale Variablen*
class B { int x, y; } // *innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

const_3 = **14** byte
getstatic 1
const 12
mul
add
load_2
sub
store_2

Bsp 5: **iarr[5] = 10;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

load_0 = **8** byte
const_5
const 10
astore

Bsp 6: **b.y = iarr[5] * 3;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

load_1 = **9** byte
load_0
const_5
aload
const_3
mul
putfield 1

Bsp 7: **n--;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

inc 2 -1 = **3** byte

Bsp 8: **i--;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

getstatic 1 = **8** byte
const_m1
add
putstatic 1

Bsp 9: **b.y--;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

load_1 = **10** byte
dup
getfield 1
const_m1
add
putfield 1

Bsp 10: **iarr[0]--;**

Deklaration: **program A**
 final int max = 12; *// Konstante*
 char c; int i; *// globale Variablen*
 class B { int x, y; } *// innere Klasse mit Feldern*
{ void foo () int[] iarr; B b; int n; {...} }

load_0 = **7** byte
const_0
dup2
aload
const_m1
add
astore