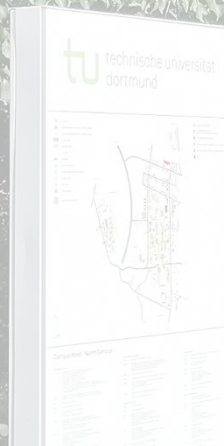


Ein Programm mit fork

Emilio Pielsticker



Otto-Hahn
37-16

37

Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        wait(NULL);
        hit();
        int x = 0;
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    return 0;
}
```

Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
```

PC

```
int main() {
```

→ Im nächsten Schritt:

```
hit();
```

```
fflush(NULL);
```

```
pid_t pid = fork();
```

```
if (pid > 0) {
```

```
wait(NULL);
```

```
hit();
```

```
int x = 0;
```

```
hit();
```

```
printf("\b\b_ \r\n");
```

```
} else if (pid == 0) {
```

```
hit();
```

```
} else {
```

```
hit();
```

```
perror("Fehler!\n");
```

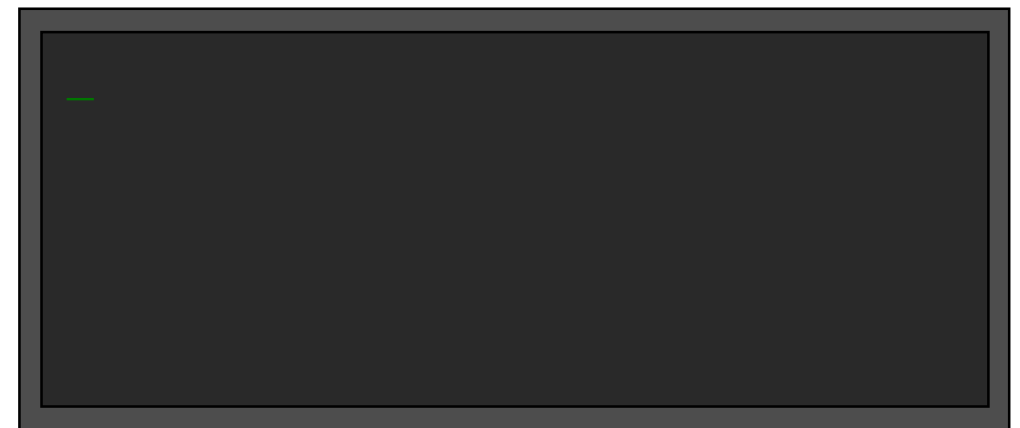
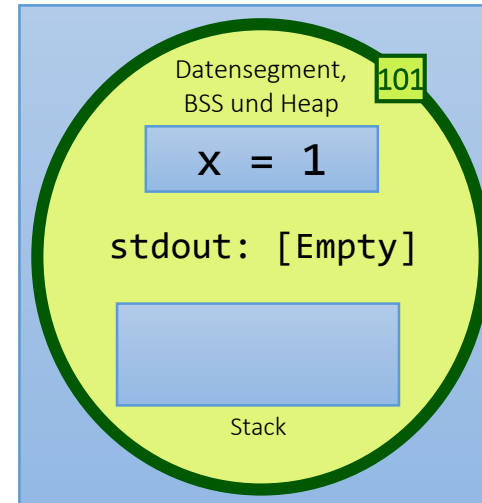
```
exit(-1);
```

```
}
```

```
return 0;
```

```
}
```

Speicher



Terminalkonsole

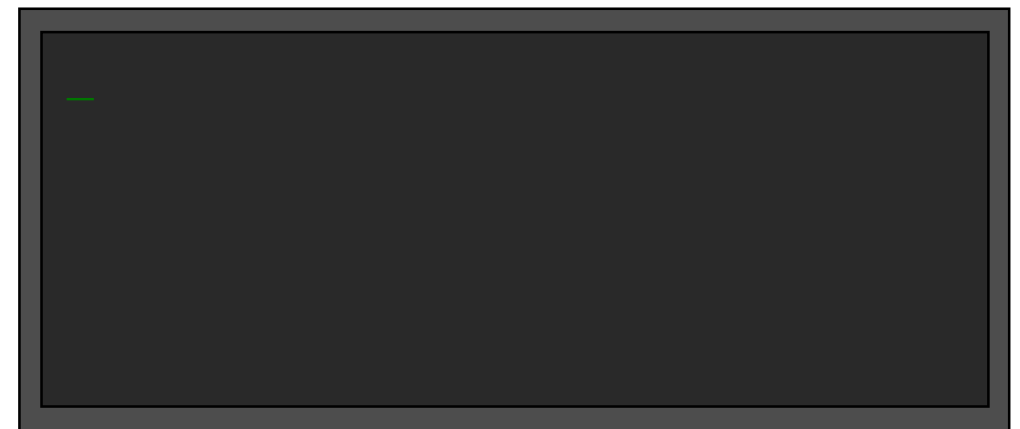
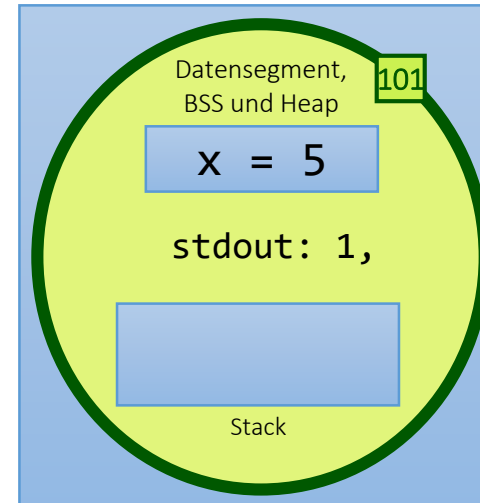
Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }  
  
int x = 1;  
int main() {  
    hit();  
    fflush(NULL);  
    pid_t pid = fork();  
    if (pid > 0) {  
        wait(NULL);  
        hit();  
        int x = 0;  
        hit();  
        printf("\b\b_ \r\n");  
    } else if (pid == 0) {  
        hit();  
    } else {  
        hit();  
        perror("Fehler!\n");  
        exit(-1);  
    }  
    return 0;  
}
```

PC (101)

→ Im nächsten Schritt:

Speicher



Terminalkonsole

Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
```

```
int main() {
```

```
hit();
```

```
fflush(NULL);
```

```
pid_t pid = fork();
```

```
if (pid > 0) {
```

```
wait(NULL);
```

```
hit();
```

```
int x = 0;
```

```
hit();
```

```
printf("\b\b_ \r\n");
```

```
} else if (pid == 0) {
```

```
hit();
```

```
} else {
```

```
hit();
```

```
perror("Fehler!\n");
```

```
exit(-1);
```

```
}
```

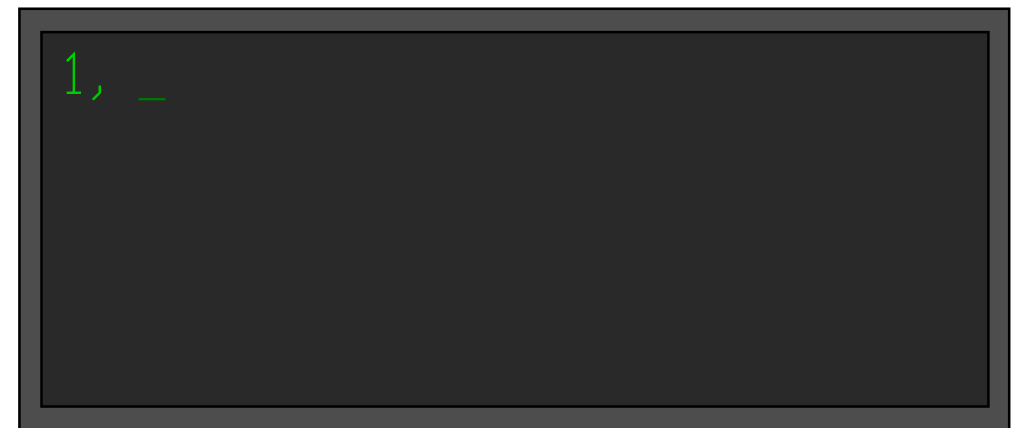
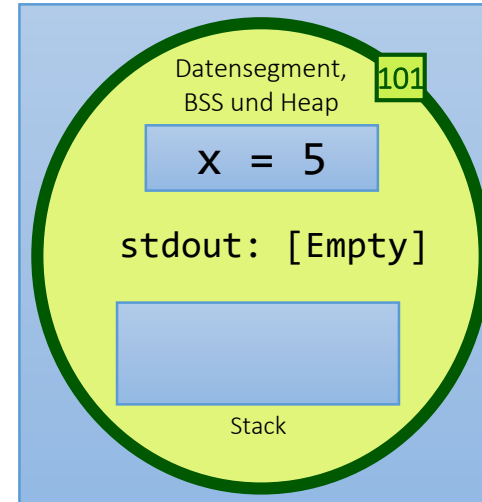
```
return 0;
```

```
}
```

PC (101)

→ Im nächsten Schritt:

Speicher



Terminalkonsole

Programm mit fork

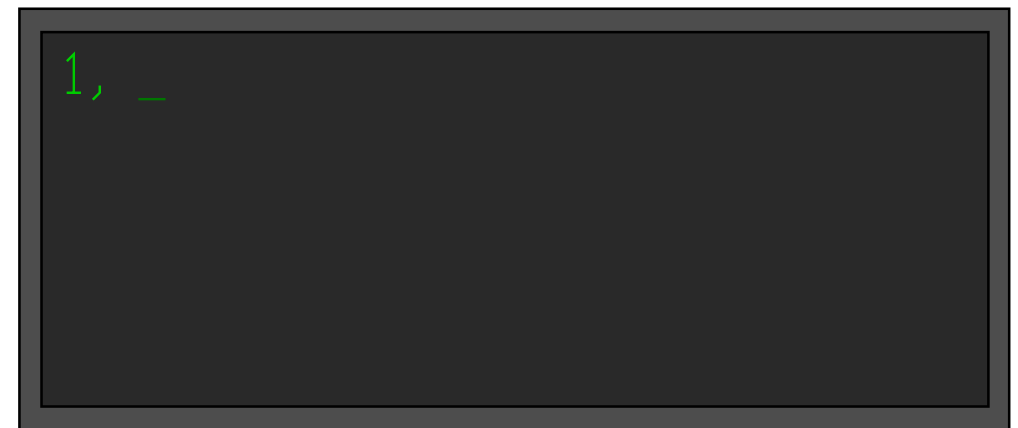
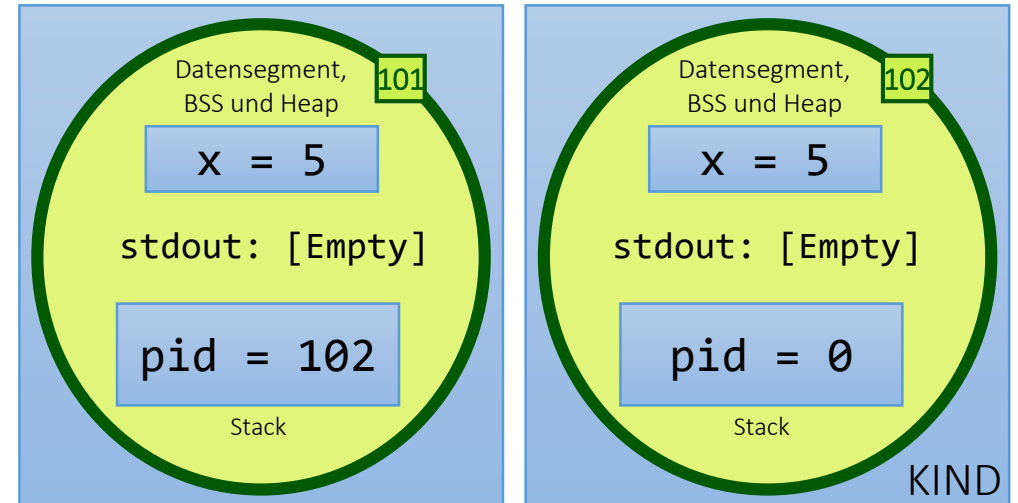
```

void hit() { printf("%d, _", x++); x += 3; }

int x = 1;
int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        PC (101) wait(NULL);
        hit();
        int x = 0;
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        PC (102) hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    return 0;
}

```

Speicher



Terminalkonsole

Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
```

```
int main() {
```

```
    hit();
```

```
    fflush(NULL);
```

```
    pid_t pid = fork();
```

```
    if (pid > 0) {
```

PC (101) → wait(NULL); **Hier warten!**

```
        hit();
```

```
        int x = 0;
```

```
        hit();
```

```
        printf("\b\b_ \r\n");
```

```
    } else if (pid == 0) {
```

PC (102) → hit();

```
    } else {
```

```
        hit();
```

```
        perror("Fehler!\n");
```

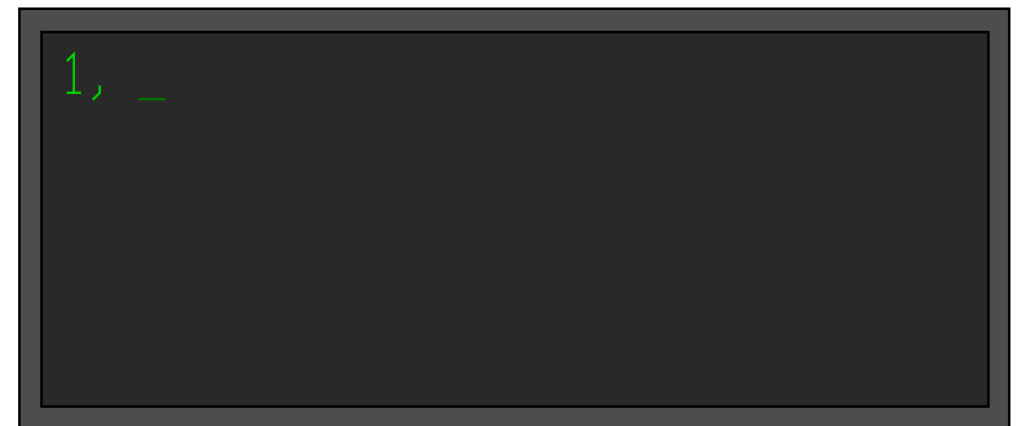
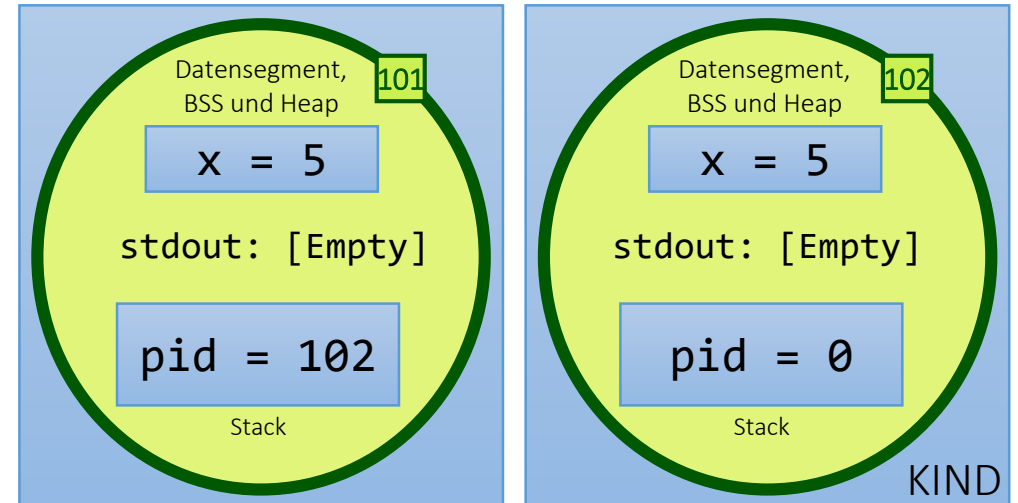
```
        exit(-1);
```

```
    }
```

```
    return 0;
```

```
}
```

Speicher



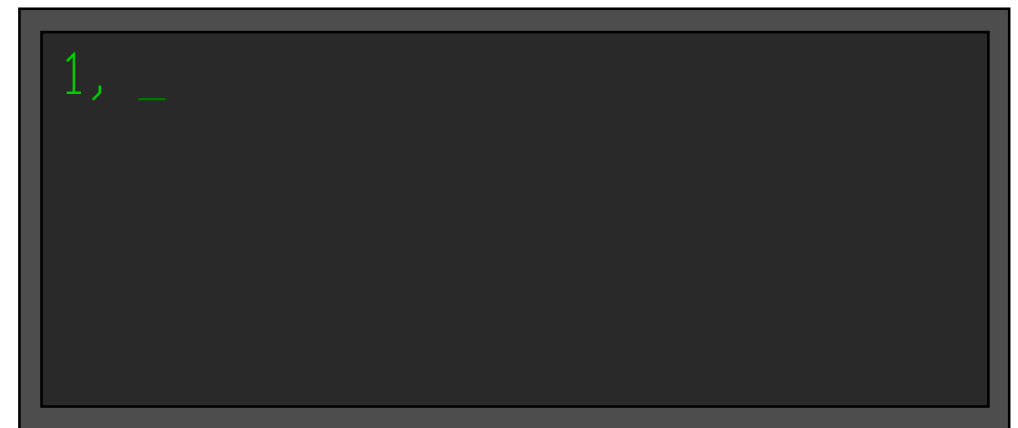
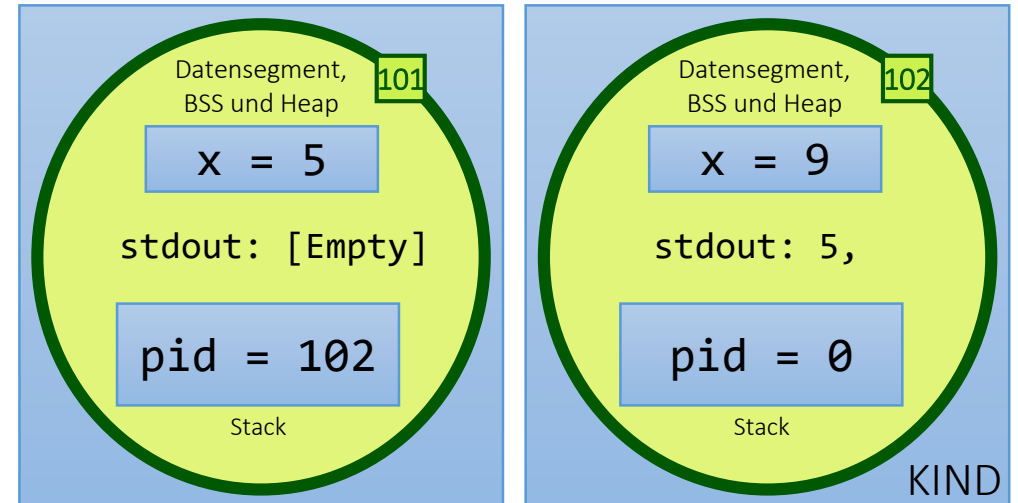
Terminalkonsole

Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        PC (101) → wait(NULL);
        hit();
        int x = 0;
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        PC (102) → hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    return 0;
}
```

Speicher



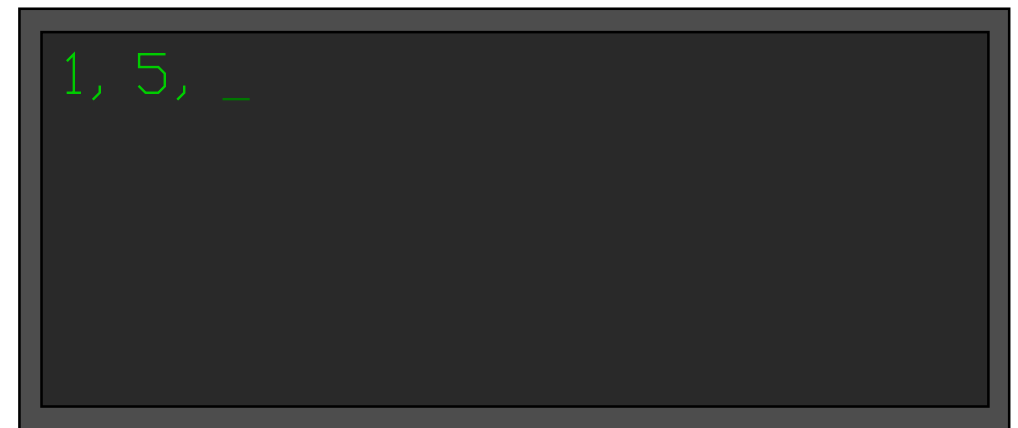
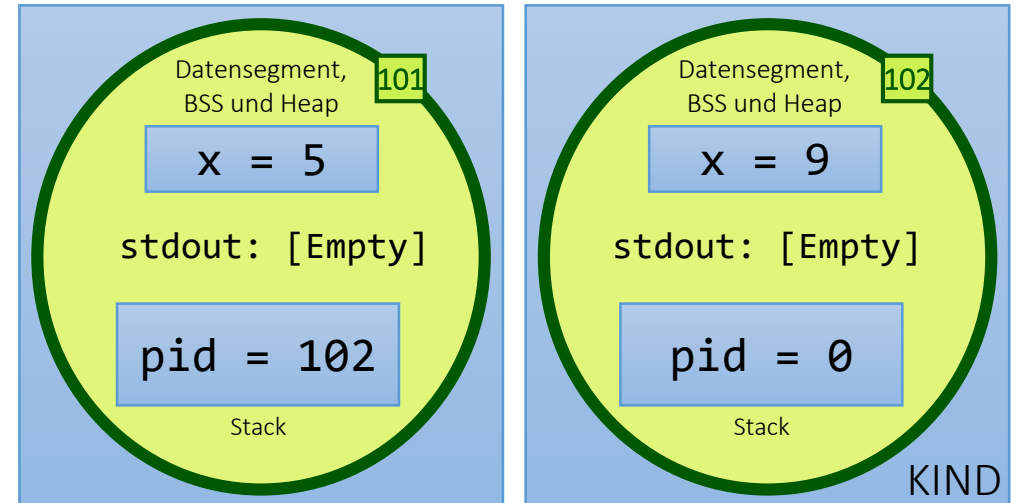
Terminalkonsole

Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        PC (101) → wait(NULL);
        hit();
        int x = 0;
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    PC (102) → return 0;
}
```

Speicher



Terminalkonsole

Programm mit fork

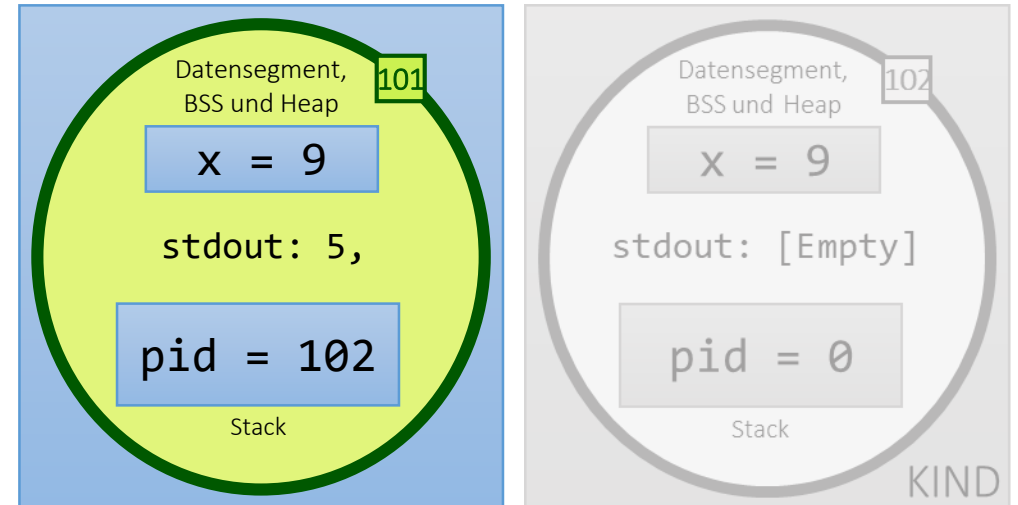
```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        wait(NULL);
        hit();
        int x = 0;
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    return 0;
}
```

PC (101)

PC (102)

Speicher



1, 5, _

Terminalkonsole

Programm mit fork

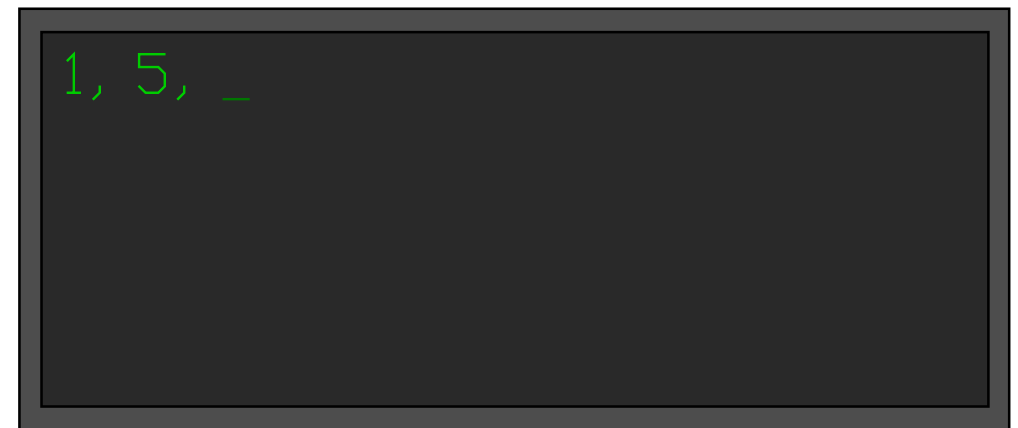
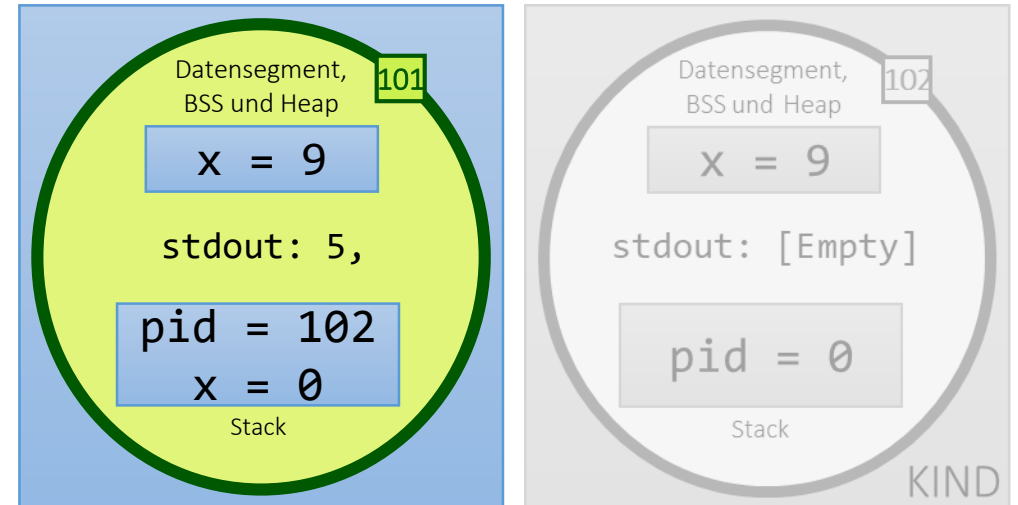
```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        wait(NULL);
        hit();
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        hit();
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    return 0;
}
```

PC (101) →

PC (102) →

Speicher



Terminalkonsole

Programm mit fork

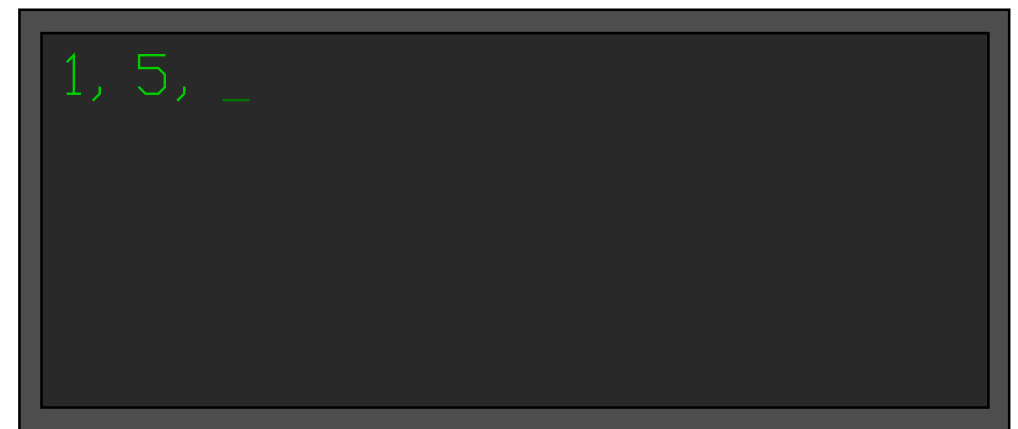
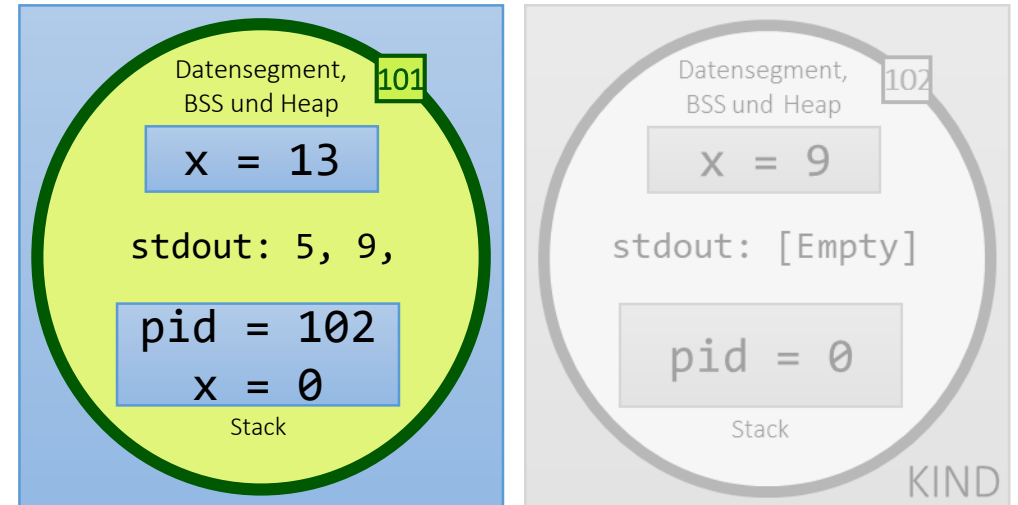
```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        wait(NULL);
        hit();
        int x = 0;
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    return 0;
}
```

PC (101) →

PC (102) →

Speicher



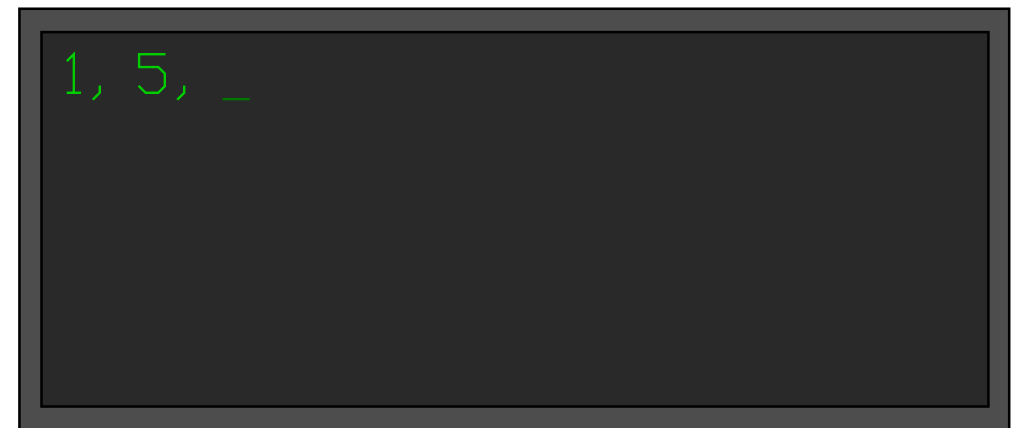
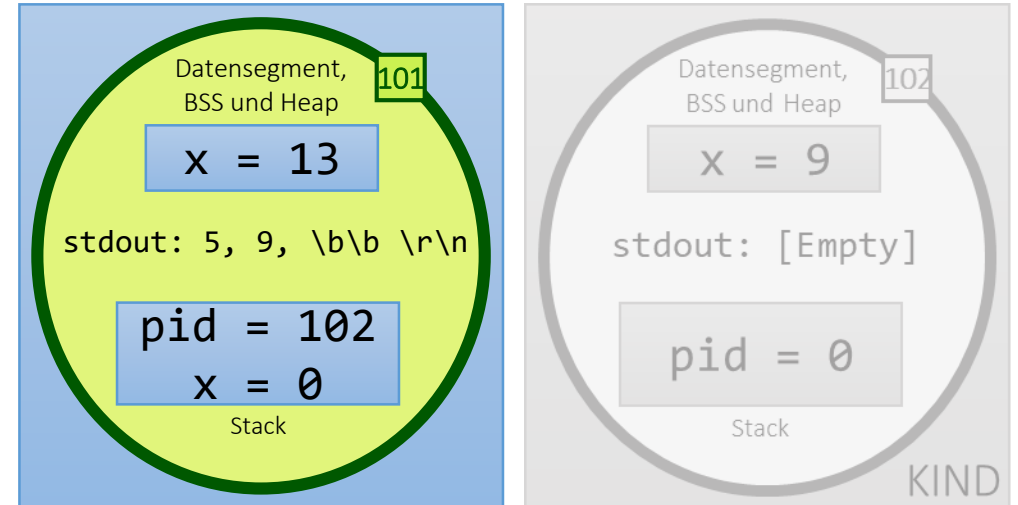
Terminalkonsole

Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
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    if (pid > 0) {
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        hit();
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        hit();
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        exit(-1);
    }
    PC (102) return 0;
}
```

Speicher



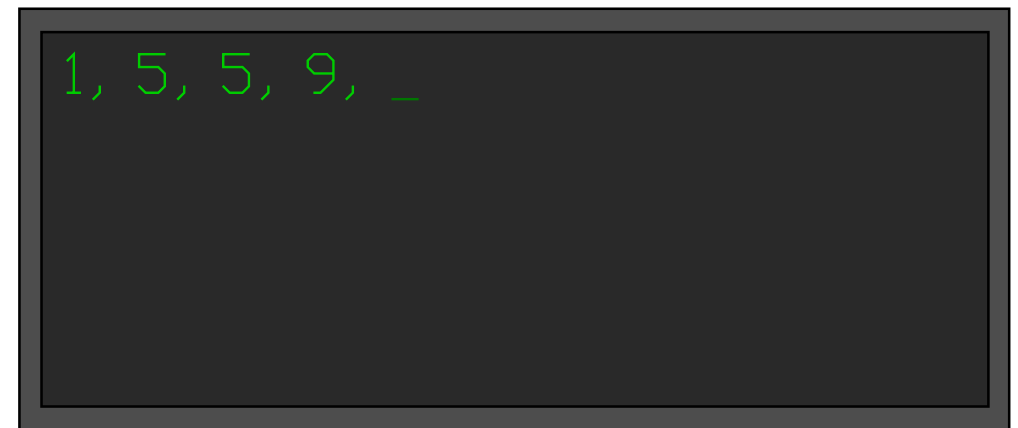
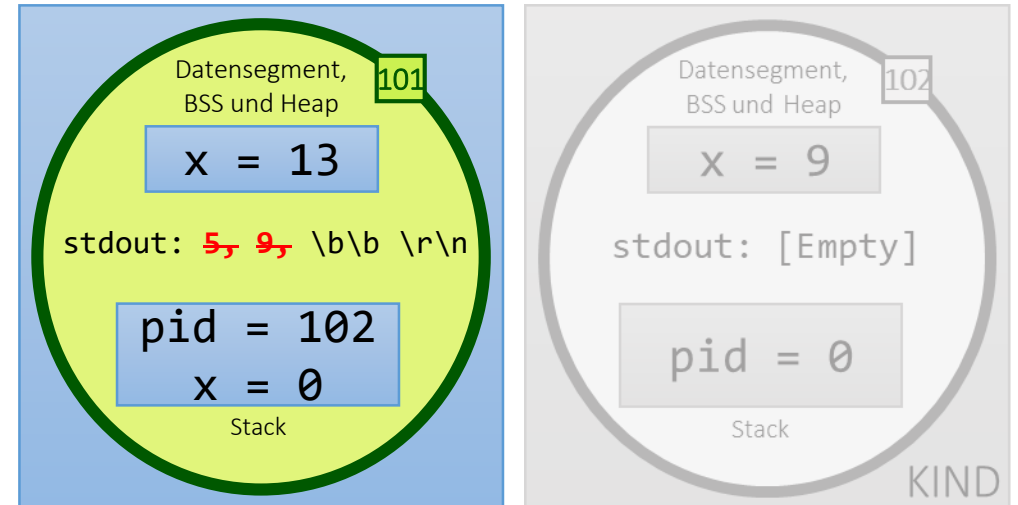
Terminalkonsole

Programm mit fork

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        hit();
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        exit(-1);
    }
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}
```

Speicher



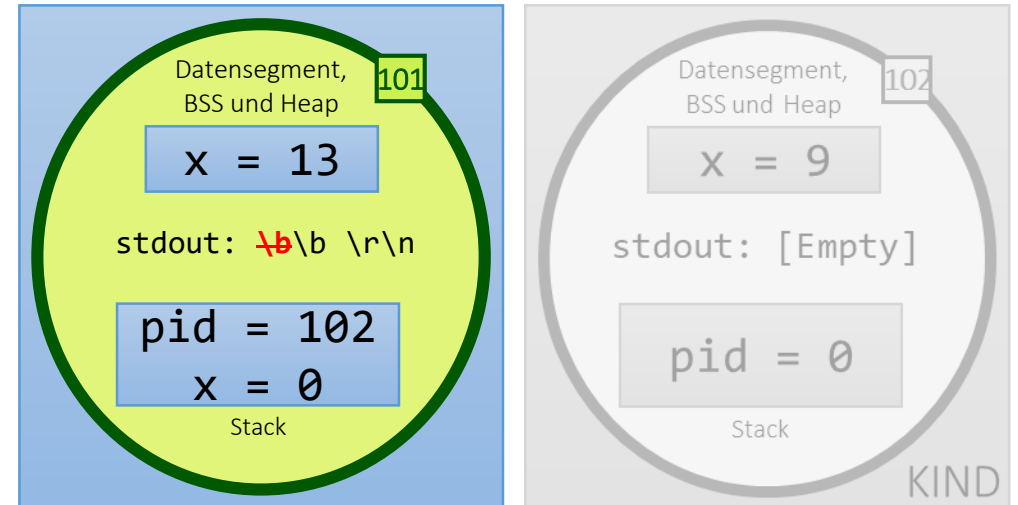
Terminalkonsole

Programm mit fork

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int x = 1;
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        hit();
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    } else if (pid == 0) {
        hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    PC (102) return 0;
}
```

Speicher



```
1, 5, 5, 9, _
```

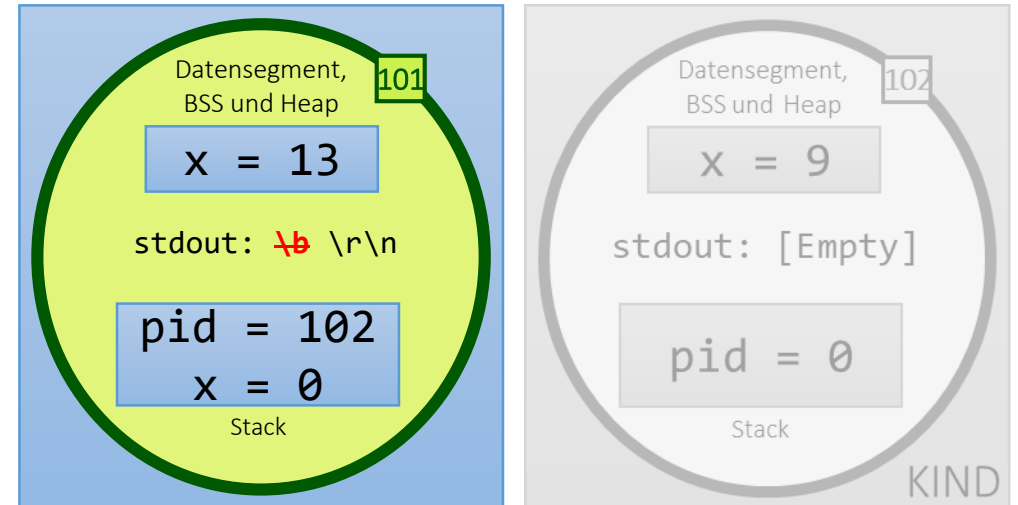
Terminalkonsole

Programm mit fork

```
void hit() { printf("%d, _", x++); x += 3; }
```

```
int x = 1;
int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        wait(NULL);
        hit();
        int x = 0;
        hit();
        PC (101) printf("\b\b_ \r\n");
    } else if (pid == 0) {
        hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    PC (102) return 0;
}
```

Speicher



```
1, 5, 5, 9, _
```

Terminalkonsole

Programm mit fork

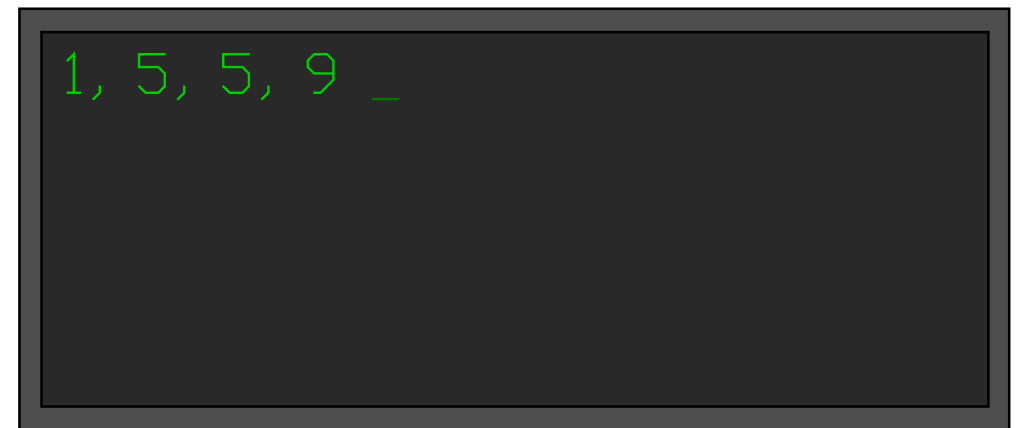
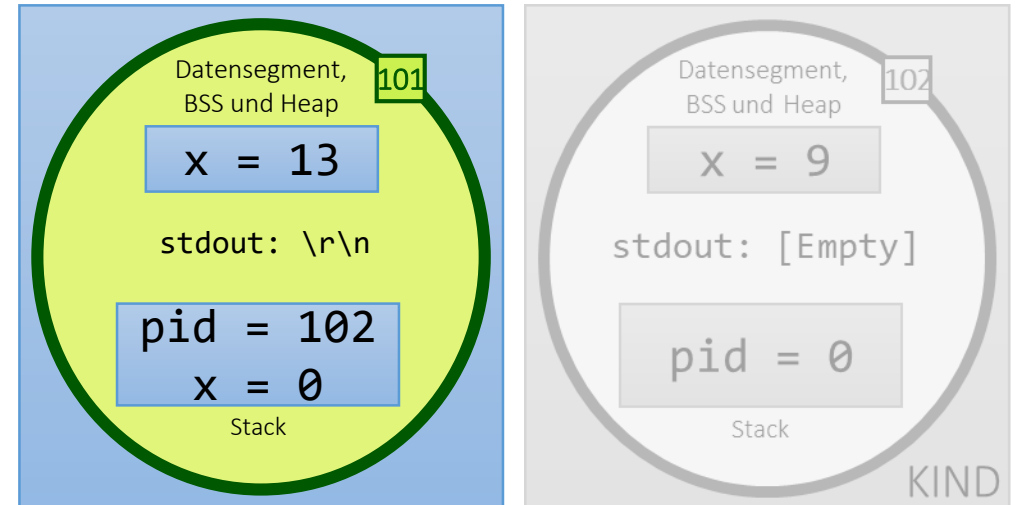
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```

```
int x = 1;
int main() {
    hit();
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        hit();
        int x = 0;
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    return 0;
}
```

PC (101) →

PC (102) →

Speicher



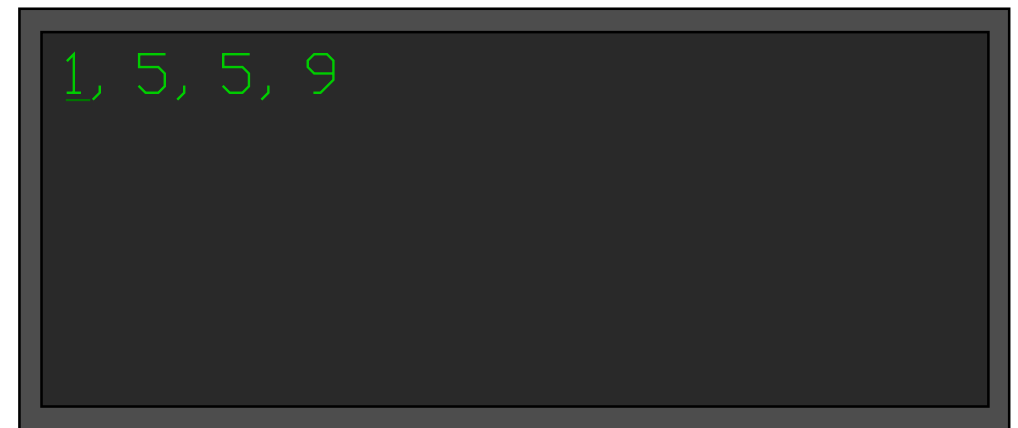
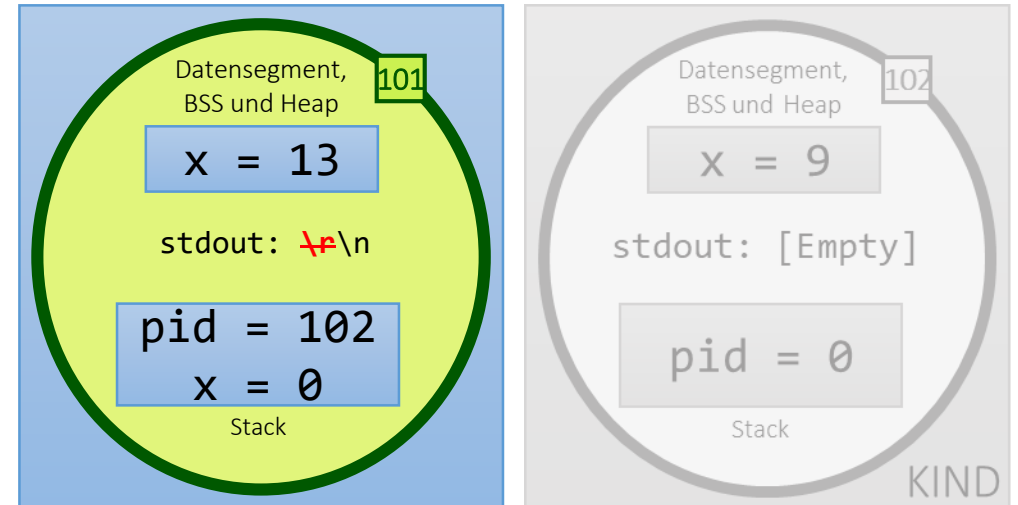
Terminalkonsole

Programm mit fork

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int main() {
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        exit(-1);
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```

Speicher



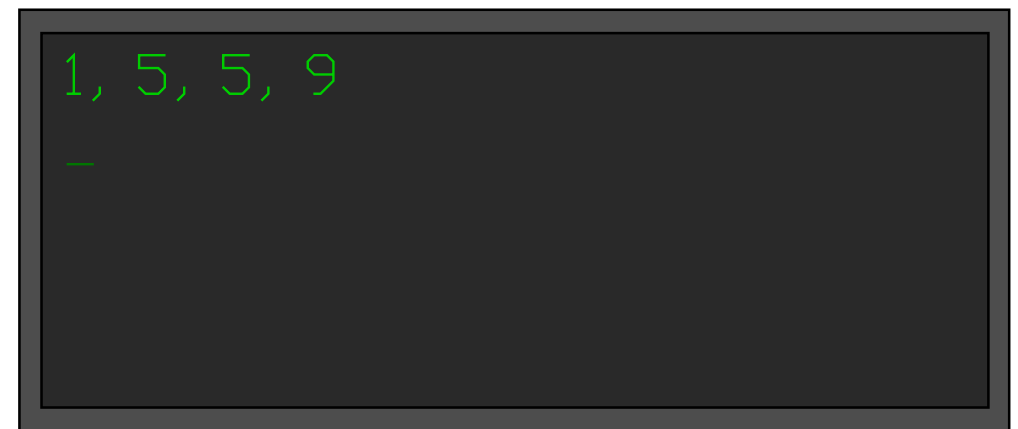
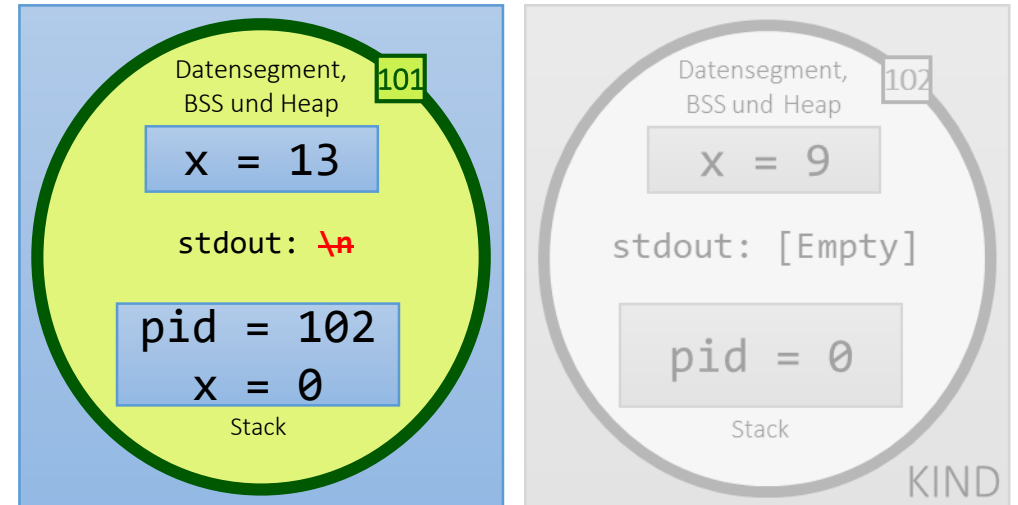
Terminalkonsole

Programm mit fork

```
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```

```
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int main() {
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    pid_t pid = fork();
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        exit(-1);
    }
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}
```

Speicher



Terminalkonsole

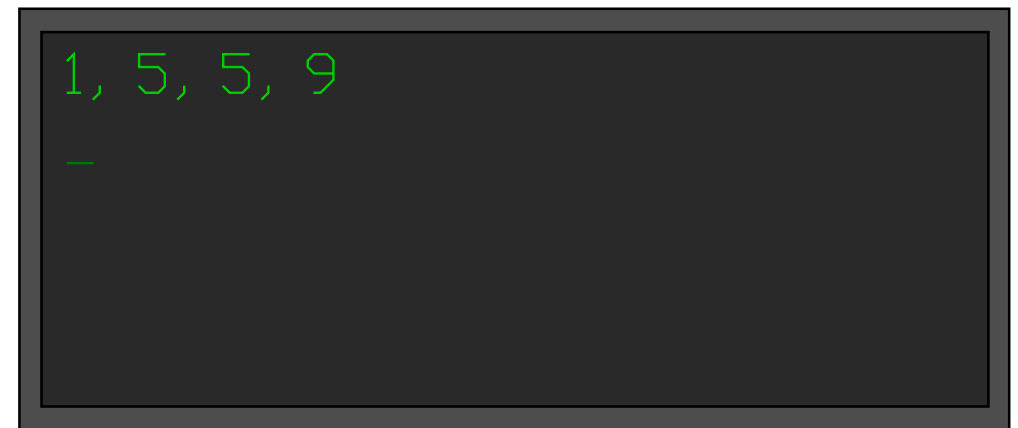
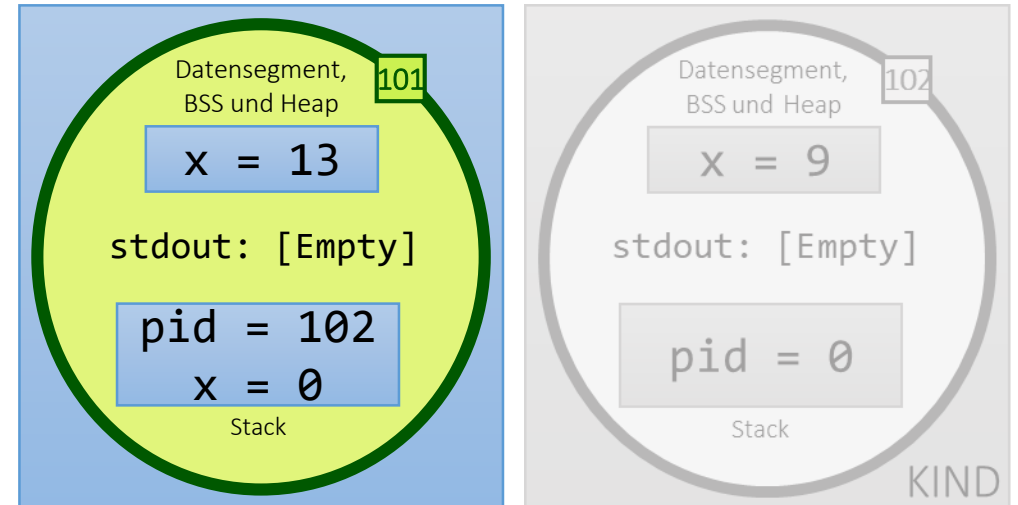
Programm mit fork

```
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```

```
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int main() {
    hit();
    fflush(NULL);
    pid_t pid = fork();
    if (pid > 0) {
        wait(NULL);
        hit();
        int x = 0;
        hit();
        printf("\b\b_ \r\n");
    } else if (pid == 0) {
        hit();
    } else {
        hit();
        perror("Fehler!\n");
        exit(-1);
    }
    return 0;
}
```

PC (101)

Speicher



Terminalkonsole