
Subject: Possible inconsistency with Rect::Contains() right-bottom bounds?

Posted by [Oblivion](#) on Sun, 16 Feb 2020 12:06:40 GMT

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Hello,

I've noticed that:

```
template <class T>
bool Rect_<T>::Contains(T x, T y) const {
    return x >= left && x < right && y >= top && y < bottom;
}
           ---          ---
           x            x

template <>
inline bool Rect_<double>::Contains(double x, double y) const {
    return x >= left && x <= right && y >= top && y <= bottom;
}
           ---          ---
           ^            ^

template <class T>
bool Rect_<T>::Contains(const Rect_<T>& r) const {
    return r.left >= left && r.top >= top && r.right <= right && r.bottom <= bottom;
}
                           ---          ---
                           ^            ^
```

Best regards,
Oblivion

Subject: Re: Possible inconsistency with Rect::Contains() right-bottom bounds?

Posted by [mirek](#) on Sun, 16 Feb 2020 18:04:04 GMT

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Oblivion wrote on Sun, 16 February 2020 13:06Hello,

I've noticed that:

```
template <class T>
bool Rect_<T>::Contains(T x, T y) const {
    return x >= left && x < right && y >= top && y < bottom;
}
           ---          ---
           x            x

template <>
```

```

inline bool Rect_<double>::Contains(double x, double y) const {
    return x >= left && x <= right && y >= top && y <= bottom;
}
    ^               ^

template <class T>
bool Rect_<T>::Contains(const Rect_<T>& r) const {
    return r.left >= left && r.top >= top && r.right <= right && r.bottom <= bottom;
}
               ^               ^

```

Best regards,
Obiivion

Thats intentional. It might be inconsistent, but for doubles it is better to include bottom-right corner into the rectangle.

Mirek

Subject: Re: Possible inconsistency with Rect::Contains() right-bottom bounds?
 Posted by [Obiivion](#) on Sun, 16 Feb 2020 19:20:26 GMT
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OK, thanks for the clarification.

Best regards,
Oblivion
